THE

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AND

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WITHOUT any boasting, it may safely be said, that the natural features of our common country (as the speakers in Congress call her,) are as agreeable and prepossessing as those of any other land—whether merry England, *la belle France*, or the German fatherland. We have greater lakes, larger rivers, broader and more fertile prairies than the old world can show; and if the Alleghanies are rather dwarfish when compared to the Alps, there are peaks and summits, "castle hills" and volcanoes, in our great back-bone range of the Pacific—the Rocky Mountains—which may safely hold up their heads along with Mont Blanc and the Jungfrau.

Providence, then, has blessed the country—our country—with "natural born" features, which we may look upon and be glad. But how have we sought to deform the fair landscape here and there by little, miserable, shabby-looking towns and villages; not miserable and shabby-looking from the poverty and wretchedness of the inhabitants—for in no land is there more peace and plenty—but miserable and shabby-looking from the absence of taste, symmetry, order, space, proportion,—all that constitutes beauty. Ah, well and truly did POPE say,

"God made the country, but *man* made the town."

For in the one, we everywhere see utility and beauty harmoniously combined, while the other presents us but too often the reverse; that is to say, the marriage of utility and deformity.

Some of our readers may remind us that we have already preached a sermon from this text. No matter; we should be glad to preach fifty; yes, or even establish a sect,—as that seems the only way of making proselytes now,—whose duty it should be to convert people living in the country towns to the true faith; we mean the true rural faith, viz., that it is immoral and uncivilized to live in mean and uncouth villages, where there is no poverty, or want of intelligence in the inhabitants; that there is nothing laudable in having a piano-forte and mahogany chairs in the parlor, where the streets outside are barren of shade trees, destitute of side-walks, and populous with pigs and geese.

We are bound to admit (with a little shame and humiliation,—being a native of New-York, the "empire state,")—that there is one part of the Union where the millenium of country towns, and good government, and rural taste has not only commenced, but is in full domination. We mean, of course, MASSACHUSETTS. The traveller may go from one

end of that state to the other, and find flourishing villages, with broad streets lined with maples and elms, behind which are goodly rows of neat and substantial dwellings, full of evidences of order, comfort, and taste. Throughout the whole state, no animals are allowed to run at large in the streets of towns and villages. Hence, so much more cleanliness than elsewhere; so much more order and neatness; so many more pretty rural lanes; so many inviting flower gardens and orchards—only separated from the passer-by by a low railing or hedge, instead of a formidable board fence. Now, if you cross the state line into New-York—a state of far greater wealth than Massachusetts, as long settled and nearly as populous—you feel directly that you are in the land of "pigs and poultry," in the least agreeable sense of the word. In passing through villages and towns, the truth is still more striking, as you go to the south and west; and you feel little or nothing of that sense, of "how pleasant it must be to live here," which the traveller through Berkshire or the Connecticut valley or the pretty villages about Boston, feels, moving his heart within him. You are rather inclined to wish there were two new commandments, viz: thou shalt plant trees, to hide the nakedness of the streets; and thou shalt not keep pigs—except in the back yard!*

Our more reflective and inquiring readers will naturally ask, why is this better condition of things—a condition that denotes better citizens, better laws, and higher civilization—confined almost wholly to Massachusetts? To save them an infinite deal of pains-taking, research and investigation, we will tell them in a few words. *That state is better educated than the rest.* She sees the advantage, morally and socially, of orderly, neat, tasteful villages; in producing better citizens, in causing the laws to be respected, in making homes dearer and more sacred, in making domestic life and the enjoyment of property to be more truly and rightly estimated.

And these are the legitimate and natural results of this kind of improvement we so ardently desire in the outward life and appearance of rural towns. If our readers suppose us anxious for the building of good houses, and the planting of street avenues, solely that the country may look more beautiful to the eye, and that the taste shall be gratified, they do us an injustice. This is only the external sign by which we would have the country's health and beauty known, as we look for the health and beauty of its fair daughters in the presence of the rose on their cheeks. But as the latter only blooms lastingly there, when a good constitution is joined with healthful habits of mind and body, so the tasteful appearance which we long for in our country towns, we seek as the outward mark of education, moral sentiment, love of home, and refined cultivation, which makes the main difference between Massachusetts and Madagascar.

We have, in a former number, said something as to the practical manner in which "graceless villages" may be improved. We have urged the force of example in those who set about improving their own property, and shown the influence of even two or three persons in giving an air of civilization and refinement to the streets and suburbs of country towns. There is not a village in America, however badly-planned at first, or ill-built afterwards, that may not be redeemed, in a great measure, by the aid of shade trees in the streets, and

* We believe we must lay this latter sin at the doors of our hard-working emigrants from the Emerald Isle. Wherever they settle, they cling to their ancient fraternity of porkers; and think it "no free country where pigs can't have their liberty." Newburgh is by no means a well-planned village, though scarcely surpassed for scenery; but we believe it may claim the credit of being the only one among all the towns, cities and villages of New-York, where pigs and geese have not the freedom of the streets.

a little shrubbery in the front yards, and it is never too late or too early to project improvements of this kind. Every spring and every autumn should witness a revival of associated efforts on the part of select-men, trustees of corporations, and persons of means and influence, to adorn and embellish the external condition of their towns. Those least alive to the result as regards beauty, may be roused as to the effects of increased value given to property thus improved, and villages thus rendered attractive and desirable as places of residence.

But let us now go a step further than this. In no country, perhaps, are there so many *new* villages and towns laid out every year as in the United States. Indeed, so large is the number, that the builders and projectors are fairly at a loss for names,—ancient and modern history having been literally worn threadbare by the god-fathers, until all association with great heroes and mighty deeds is fairly beggared by this re-christening going on in our new settlements and future towns, as yet only populous to the extent of six houses. And notwithstanding the apparent vastness of our territory, the growth of new towns and new states is so wonderful—fifteen or twenty years giving a population of hundreds of thousands, where all was wilderness before—that the plan and arrangement of new towns ought to be a matter of national importance. And yet, to judge by the manner in which we see the thing done, there has not, in the whole duration of the republic, been a single word said, or a single plan formed, calculated to embody past experience or to assist in any way, the laying out of a village or town.

We have been the more struck by this fact in observing the efforts of some companies who have lately, upon the Hudson, within some twenty or more miles of New-York, undertaken to lay out rural villages, with some pretension to taste and comfort; and aim, at least, at combining the advantages of the country with easy railroad access to them.

Our readers most interested in such matters as this, (and, taking our principal cities together, it is a pretty large class,) will be interested to know what is the beau-ideal of these companies, who undertake to buy tracts of land, lay them out in the best manner, and form the most complete and attractive rural villages, in order to tempt those tired of the way-worn life of side-walks, into a neighborhood where, without losing society, they can see the horizon, breathe the fresh air, and walk upon elastic green-sward.

Well, the beau-ideal of these newly planned villages is not down to the zero of dirty lanes and shadeless roadsides; but it rises, we are sorry to say, no higher than streets, lined on each side with shade trees, and bordered with rows of houses. For the most part, those houses—cottages, we presume—are to be built on 50 feet lots; or if any buyer is not satisfied with that amount of elbow room, he may buy two lots, though certain that his neighbor will still be within 20 feet of his fence. And this is the sum total of the rural beauty, convenience and comfort of the latest plan for a rural village in the Union.* The buyer gets nothing more than he has in town, save his little patch of back and front yard, a little peep down the street, looking one way at the river, and the other way at the sky. So far from gaining anything which all inhabitants of a village should gain by the combination, one of these new villagers actually loses; for if he were to go by himself he would buy land cheaper, and have a fresh landscape of fields and hills around

* We say *plan;* but we do not mean to include in this such villages as Northampton, Brookline, etc., beautiful and tasteful as they are. But they are in Massachusetts!

him, instead of houses on all sides, almost as closely placed as in the city, which he has endeavored to fly from.

Now a rural village—newly planned in the suburbs of a great city, and planned, too, specially for those whose circumstances will allow them to own a tasteful cottage in such a village—should present attractions much higher than this. It should aim at something higher than mere rows of houses upon streets crossing each other at right angles, and bordered with shade trees. Any one may find as good shade trees, and much better houses, in certain streets of the city which he leaves behind him; and if he is to give up fifty conveniences and comforts, long enjoyed in town, for the mere fact of fresh air, he had better take board during the summer months in some snug farm-house as before.

The indispensable desiderata in rural villages of this kind, are the following: 1st, a large open space, common, or park, situated in the middle of the village—not less than 20 acres; and better, if 50 or more in extent. This should be well planted with groups of trees, and kept as a lawn. The expense of mowing it would be paid by the grass in some cases; and in others a considerable part of the space might be enclosed with a wire fence, and fed by sheep or cows, like many of the public parks in England.

This park would be the nucleus or *heart of the village*, and would give it an essentially rural character. Around it should be grouped all the best cottages and residences of the place; and this would be secured by selling no lots fronting upon it of less than one-fourth of an acre in extent. Wide streets, with rows of elms or maples should diverge from the park on each side, and upon these streets smaller lots, but not smaller than 100 feet front, should be sold for smaller cottages.

In this way, we would secure to our village a permanent rural character; first, by the possession of a large central space, always devoted to park or pleasure ground, and always held as joint property, and for the common use of the whole village; second, by the imperative arrangement of cottages or dwellings around it, in such a way as to secure in all parts of the village sufficient space, view, circulation of air, and broad, well-planted avenues of shade trees.

After such a village was built, and the central park planted a few years, the inhabitants would not be contented with the mere meadow and trees, usually called a park in this country. By submitting to a small annual tax per family, they could turn the whole park, if small, or considerable portions, here and there, if large, into pleasure-grounds. In the latter, there would be collected, by the combined means of the village, all the rare, hardy shrubs, trees and plants usually found in the private grounds of any amateur in America. Beds and masses of everblooming roses, sweet-scented climbers and the richest shrubs would thus be open to the enjoyment of all during the whole growing season. Those who had neither the means, time, nor inclination to devote to the culture of private pleasure-grounds, could thus enjoy those which belonged to all. Others might prefer to devote their own garden to fruits and vegetables, since the pleasure-grounds, which belonged to all, and which all would enjoy, would, by their greater breadth and magnitude, offer beauties and enjoyments which few private gardens can give.

The next step, after the possession of such public pleasure-grounds, would be the social and common enjoyment of them. Upon the well-mown glades of lawn, and beneath the shade of the forest trees, would be

formed rustic seats. Little arbors would be placed near, where in mid-summer evenings ices would be served to all who wished them. And, little by little, the musical taste of the village (with the help of those good musical folks—the German emigrants,) would organize itself into a band, which would occasionally delight the ears of all frequenters of the park with popular airs.

Do we over-rate the mental and moral influences of such a common ground of entertainment as this, when we say that the inhabitants of such a village—enjoying in this way a common interest in flowers, trees, the fresh air and sweet music, daily—would have something more healthful than the ordinary life of cities, and more refining and elevating than the common gossip of country villages?

"Ah! I see, Mr. Editor, you are a bit of a communist." By no means. On the contrary, we believe, above all things under heaven, in the power and virtue of the *individual home*. We devote our life and humble efforts to raising its condition. But people *must* live in towns and villages, and therefore let us raise the condition of towns and villages, and especially of rural towns and villages, by all possible means!

But we are *republican;* and, shall we confess it, we are a little vexed that as a people generally, we do not see how much in America we lose by not using the advantages of republicanism. We mean now, for refined culture, physical comfort, and the like. Republican *education* we are now beginning pretty well to understand the value of; and it will not be long before it will be hard to find a native citizen who cannot read and write. And this comes by making every man see what a great moral and intellectual good comes from cheerfully bearing a part in the burden of popular education. Let us next take up popular refinement in the arts, manners, social life, and innocent enjoyments, and we shall see what a virtuous and educated republic can really become.

Besides this, it is the proper duty of the state—that is, *the people*—to do in this way what the reigning power does in a monarchy. If the kings and princes in Germany, and the sovereign of England, have made magnificent parks and pleasure-gardens and thrown them wide open for the enjoyment of all classes of the people, (the latter, after all, having to pay for it,) may it not be that our sovereign *people* will (far more cheaply, as they may,) make and support these great and healthy sources of pleasure and refinement for themselves in America? We believe so; and we confidently wait for the time when public parks, public gardens, public galleries and tasteful villages, shall be among the peculiar features of our happy republic.

NOTES ON VINE BORDERS.

BY WM. WEBSTER, ROCHESTER, N. Y.

In looking over the March number of the Horticulturist, I was induced to pay particular attention to an article on the formation of vine borders, by Mr. J. Stewart, of Washington, D. C.; and having been a practical gardener and grape-grower for some years, I felt desirous of penning a few remarks on the subject.

In the first place, I should say, from the whole tenor of Mr. Stewart's remarks,

that he has shown himself thoroughly acquainted with the cultivation of foreign grapes. However widely we may differ on one point, still there is no good practical gardener but must agree with him in the majority of his remarks. Mr. STEWART says nothing can be more pernicious than to introduce a mass of putrid and decaying animal bodies, in which the roots are to extend their different ramifications, and from which they are to collect their food. The same opinions I entertain, a circumstance having occurred a few years since to settle the question to my entire satisfaction. At the period I mention, I had the charge of some large vineries in Canada; and my attention at the outset was directed to the unhealthy appearance of some of the vines in one of the houses; and feeling confident the vines were diseased at the roots, I set to work with some of the hands to dig about them, and ascertain the cause. On getting to the depth of a couple of feet, we encountered the skeletons of a horse and ox, which had been tumbled in side by side two or three years before, and which, on being a second time exposed to the air, emitted a stench almost too intolerable to bear. However, we cleared everything offensive away from the borders, and on examination I found all the roots dead which came within the influence of what had once been carrion, and which still retained all the effluvia of carrion; proving most undeniably that such was not the proper food for the grapevines. I say, let the crows and the buzzards take such stuff, for they have a natural right to it. Not having at the time any young vines to take the place of the old ones, I cut away all the diseased roots, leaving only those which were out of the influence of the carrion, headed the vines well back, and filled up the border again with suitable materials. The vines in the following spring made a good growth of new wood,—proving that they were well enough contented with their new food.

I had afterwards occasion, at the same place, to form a new border on the outside of a cold-house, upwards of a hundred feet in length. Some of the materials which I used on that occasion being a little different from those generally used, I may as well state in due course what they were. The border was excavated to the depth of $3\frac{1}{2}$ feet, 12 feet wide, and the whole length of the house, having an inclination of about 4 inches from the outside of border to the front of house, with a drain running the whole length. The surface soil was a clay loam, which was reserved to incorporate with materials in the border. The subsoil being a retentive clay, was carted away to fill in a hollow, having laid about 8 inches of rubble stones on the bottom. On this again was laid about a foot of the pith of cattle horns, of which materials I was fortunate enough to obtain a large quantity, and also horn shavings from a comb factory. On the horn piths, (which is a bony substance, and which I consider equal to any other bones for a grape border,) was laid a good quantity of coarse manure. I was unable at the time to obtain turf suitable for the border; therefore, I used black loam, old hot-bed manure, and horn shavings. Horn piths and horn shavings I consider as excellent for a grape border, particularly the latter, which I always use for such purposes when able to obtain them, either as a top-dressing or to incorporate in the border. You will see this border was only 12 feet wide; my intention was to add 12 feet more, but circumstances prevented my completing it.

The superiority of Mr. STEWART's 12 feet border, over one of greater dimensions, is a mere matter of opinion, and not of facts;

and with all due respect for Mr. STEWART's judgment, I beg to differ with him in this respect,—as I prefer a border 24 feet wide for a cold-house,—and as to not being able to determine the exact locality where the food is required, only let it be placed evenly over the border, the vines are sure to find it; and where such a border has been properly made, and well watered with liquid manure, and mulched, during the heat of summer, I have never failed to find spongioles immediately in all parts of the border. Now every one knows that a grapevine, in its growing state, requires a certain amount of food. If that amount can be supplied in 12 feet border, why, well enough. Such a border, however, in my opinion, is much too contracted for the roots, and the exhaustion certainly must be greater than in a wider one.

Having freely stated my opinions in regard to the above subject, I will say a few words respecting a "cold-house," which was under my management last year. The house in question was erected in the latter part of the summer of 1848, by Messrs. BISSELL & HOOKER, the proprietors of the Commercial Nursery of this city; who, by the way, are always desirous of introducing good fruits to notice. This house is 60 feet long, and 24 feet wide, with span roof. Owing to the lateness of the season before the house was completed, as the vines were small, they made but little growth that season—many of them scarcely getting sufficiently established to go safely through the winter. Consequently my prospects, when I commenced in spring, were rather gloomy; but on being informed by these gentlemen, that the borders were made in the most thorough manner, I undertook the management with right good will. The borders are 24 feet wide, and 3 feet deep, resting on a fine gravelly bottom, and raised 18 inches from the surface, and composed of the following materials: Slaughter-house manure, (no carrion,) old bones, oyster shells, rotten manure, lime, and loamy turf. The inside border of the house corresponds to the outside,—having a row of vines on each side of centre walk. The vines grew but little until June, when I commenced watering with liquid manure, and mulching the border. I continued the application of liquid manure once a week during the growing season, the effect of which was equal to my most sanguine expectations,—some of the strongest vines reaching to the ridge-pole, with short jointed wood nearly an inch in diameter. Now I consider liquid manure the best of all manures, as it is only in the soluble state that plants can derive any benefit from manures. It may not be inappropriate, therefore, to add that Messrs. B. & H. have a good sized barnyard, in which is a reservoir 20 feet long, 8 feet wide at top, tapering to about 4 feet in bottom, and between 3 and 4 feet deep, forming a shallow basin, with cross-drains emptying into it. Such a reservoir is a valuable acquisition to any gardener; for at no time during last summer was there the least want of liquid manure. There is, indeed, another use to which it can be applied in winter. In the fall of 1848, this reservoir was filled with loamy turf, and allowed to remain and soak in the liquid all the winter. It was thrown out again in the spring, and allowed to remain in a heap until the fall. It was then turned over, mixing at the same time some rotten manure through it. This remained exposed to the frost of last winter, and is now a most admirable compost for grapevines, either for pots or borders. Yours respectfully,

WM. WEBSTER.

ROUGH NOTES, FROM THE WEST.

BY DR. JOHN A. KENNICOTT, OF THE GROVE, ILL.

YOUR LEADER, for April, is above all praise, because it is not only thoughtful and truthful, but bold and liberal. We, of the west, had hoped for this at your hands, but scarce expected it. For one, who believes he speaks the sentiments of many, I thank you.

The agricultural press does "begin to feel that it is of some account in the commonwealth;" and it will, ere long, teach "the farming class" to know and assert "its rights in the state."

It is a law of nature, that all have a right to life, and the liberty to pursue happiness, provided that we neither injure or interfere with the rights of others. And at this day, when the race of men is improving in the mental, more rapidly than some other animals are improved in the physical; in an age when nothing is impossible—when utility and the laws of progress, not "old custom," govern all things—*education*—"*knowledge* is" not only "power" and wealth, but happiness. The indigent farmer has, therefore, the same right to pursue this sort of happiness as he "born with a silver spoon in his mouth." And he has the same political rights to colleges for his specific education as the divine, the lawyer, the doctor and the soldier; all of whom have been more or less provided for by government.

And I have even heard it hinted by some bold farmers, who are in the habit of thinking and calculating, (a notion bred of this same agricultural press, I fancy,) that we have a somewhat better political right to the patronage of government than all other classes put together; for we greatly outcount them *at the polls*. And then, we can plead in extenuation of this rash thought, the musty old maxim, that the services of the farmer and the mechanic are those alone naturally indispensable to the existence of the immense mass of human beings now brightening the glad earth, as they no longer *creep*, but fly over it, in their course towards the setting sun, and the perfection (which must happen somewhere in the twentieth century,) of the Anglo-Saxon race.

We ask Congress for an *Agricultural Bureau*, connected with the machinery of our government. We ask a mere trifle. It will not cost so much as the maintainance of a sloop of war, in full commission, nor half as much as the interest on the expenditures for the construction of a single harbor and military fortification on our Atlantic sea-board; and this slight aid to agriculture and horticulture would form, if nothing else, a nucleus—a central office, or general agency for all the state agricultural and horticultural societies—where all could meet on common ground, to which all could report, and from which the collections of facts, and things, from all parts of the world, could *re-emanate* in a condensed, or proportioned form, and find their way equally, and without cost, to all interested throughout the Union.

It is to be hoped that the present Congress will see this affair in its true light, and act as becomes our representatives, and the great interests connected with agricultural improvements, and "the fine arts of rural life." We have never been obtrusive. We have never seriously demanded aid; for we have expected it would be spontaneously given, as soon as we were prepared to re-

ceive and turn it to good account. That time has now arrived, and we cannot be denied.

Your remarks on the progress of horticultural science, and the benefits to be derived therefrom, are not overstrained—I think not quite up to the mark even, though I am perhaps ultra-enthusiastic on this subject. Still my extreme views have been, very recently, adopted by high authority. Would you have believed it possible that a learned professor in one of our most flourishing medical colleges—and no pomologist, by the way—could have had the hardihood, as well as the liberality, to review the proceedings of our convention at Syracuse, in an old school medical journal, of high repute, and, moreover, endorse, in his editorial capacity, my very unorthodox notions "on the prophylactic and curative properties of ripe fruits?" And yet, such is the fact; and further, I have received declarations from many eminent physicians, not only endorsing, but adding new evidence and greater weight to my broad assertions. From all of which, I am led to believe, that the day is not distant when this doctrine will be that of our books and our schools of medicine.

The science of medicine, as well as all the useful arts, has made giant strides towards perfection within this nineteenth century. Free air and cold water, now considered indispensable in the treatment of febrile affections, you may well remember were strictly prohibited not long since,—and fruits were deemed still more dangerous; and now they are often permitted, and, indeed their juices, from the lemon to the watermelon, are freely prescribed by our best physicians.

In the western country, a great majority of persons either suffer from habitual constipation, or the reverse. These conditions of the digestive organs are produced by faults of diet, especially eating too much fat pork, *whiskey drinking*, and *the use of purgatives*. The quantity of cathartic medicines vended in the west is enormous; and their mischievous effects are sufficiently obvious, though incalculable, and unknown to all, save the observing physician.

For all this wide spread misery, on which quacks fatten—this waste of health and life—we offer a cheap, safe, and efficient remedy, in *fresh garden vegetables*, (seldom eaten west,) and *ripe fruits*.

All cultivated fruits are wholesome, and remedial in their season, and their climate. In some countries, however, particular sorts are not perfected. In England, for example, apples are often too acid and immature, and in southern climes too dry and premature, to be either very delicious or very wholesome. And occasionally the best fruits will be found to disagree with particular individuals, from constitutional idiosyncrasy.

During my residence in New-Orleans, I observed that the "creoles" who ate liberally of fruits and fresh vegetables were seldom ill, and never liable to febrile affections, in comparison with our other population. The usual, and indeed the best, breakfast for a hot climate is a "French roll," ripe berries, peaches, grapes, figs, oranges, tomatoes, cantaloupes, bananas, &c., as they come in season, and the universal bottle of good "table claret," *without animal food*. The same for dinner, with the addition of soups, or gombo, a little exquisitely dressed fish or flesh, and plenty of vegetables, prepared as no one better than a Creole can do it. For supper—nothing. Yours, J. A. K.

The Grove, Ill., April, 1850.

A LETTER TO LADIES IN TOWN.

BY A NEW-ENGLAND COUNTRY GIRL.

Mr. Downing—*Dear Sir:* I don't think you have many lady correspondents to your delightful Horticulturist. I suppose the reason is, that we women have nothing new to say about fruits or flowers; or perhaps, taking warning from our common mother, we shun *pomology*. Now I am no wiser than any of the rest. I could not graft a tree, for my life. I am tired out hearing of "remarkable pears;" and as for botanizing, I should as soon think of carving neighbor Simpson's dear little baby to pieces, to study practical anatomy, as pulling one of my precious flowers apart, to count its slender stamens, and give it a polysyllabic name. But I am a country girl; and knowing that many city ladies read your book, I want to borrow its pages, to try if I cannot lure some of those languid feet, and delicate hands, into my haunts of wood and field this coming summer. Is not this a laudable object? If I *should* persuade some fair votary of operas and balls into my wide concert room, how beautifully those weary lips would smile and redden in the keen fresh air! Ah, my pale and lovely sister, you may tread with light steps the sunny pavé of Broadway, or roll over the avenues in your easy carriage, or enchant all Harlem with the horsewomanship you display; but you don't know what life is till you have been with me, treading

"In glory and in joy along the mountain side."

I know the pavement is smooth walking; I do not despise beaux; and I like beautiful dresses, and French shoes, as well as any belle that ever lived; but I love the woods best.

Put on my water-proof boots, and that sun-bonnet. We will show you how to climb fences; and now—your are fairly entered into bush-land. You like flowers? —bouquets of rare exotics, and the heavy sweetness of Heliotrope, and Cape Jessamine, perhaps;—but look at that sunny hillside! see the dog-tooth violet, in full bloom among the dry leaves, tossing its golden turbans to every breeze, and looking stately as a flight of captive princesses from fairy land. There, under your feet, is the frail Anemone, with pink buds and white blossoms. Behind that stump nestles the bright blue Liverwort; and on the edge of this clear brook the delicate "Spring Beauty" bends over the water timidly. Over head, the leafless boughs rustle and wave against the serene sky, and the dry grass yields softly to your feet beneath. There, too, are violets, purple and white both, and the meadow grass is strewn with "Innocents." Nor is the wood lonely; there is a woodchuck's hole, and the yellow sand before his door is freshly thrown out. Dare I tell you what that was that stirred the leaves yonder? You would scream, I think, —yet needlessly; it is only a harmless striped snake. Then, the innumerable frogs, which hold a congressional session in the swamp, do not hold their peace in broad sunlight. There are no pistols in their breast pockets, my dear! All this noise and threatening roar is "vox et præterea nihil." And if this nook of forest is lovely now, what will it be in the summer, when the partridge berry shows its fragrant and tiny blossoms; when wild honeysuckles shine through the columned shades, and the sweet wild roses wave their long gar-

lands, mixed with sweet briar boughs, and perhaps a clinging, loving clematis, pearl budded, around both. Oh! leave Broadway, with its ceaseless toilettes and flirtations; let the long piazzas at Saratoga rest for one summer, forget your jewels and flounces—even your beaux—(unless they are lovers,) and come into the real country. Be true, natural women, for once. Take lodgings with some sturdy old farmer, if you can, eat rye bread, and keep in the "lots" all day long. Glove your white hands, and *bonnet* as deep as you please, but eschew green veils; and if you do not return in October with rosier cheeks, brighter eyes, and fresher hearts than ever yet commenced a winter's campaign, I give you leave to tear my hair mentally, and call me, even in print, a false and deceitful

WILD FLOWER.

In the Bushes, May, 1850.

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Here is a good sermon from fair lips, judging from the delicate hand in which this epistle comes to us. If the post-mark had not betrayed the whereabouts of our "new contributor," (we shall be glad to hear from her again,) the little quotation would; for nowhere, but in New-England, do country girls quote Latin.

As to the more important matter—the good advice she gives—we ratify it with all our editorial authority. There is such a constant turning of all eyes to the *cities*, for all laws pertaining to manners and customs—what to do and what to say—that we are in danger of becoming a nation of cockneys. To find a woman who is in earnest about the country and country life, though she has worn "French shoes," is as refreshing as to find a well of sweet water and a grove of palm trees in the midst of the desert. America, everybody says, is "the paradise of women;" but we are obliged to say, they live in paradise, as if the open air of that desirable climate were contaminated; that is to say, they contrive to take as little of it into their lungs as possible. Alas! if Mrs. ELLIS, or some other "woman of the nineteenth century,"—instead of writing books to teach "mothers and daughters" what to do to be happy—would only persuade VICTORIA and half a dozen real live DUCHESSES—anybody, in short, who could and would *set the fashion*—to come to this happy paradise and demonstrate that *ladies* can and do walk, and ride, and work in the garden, and become real flesh and blood creatures, it would be a blessing to the nation worth all California, Mexico and Cuba,—yes, and even Spanish South America, in the bargain. ED.

COAL CINDERS FOR PEAR TREES.

BY P. M. C., NEW-YORK.

WE have examined the rows of trees referred to in the following communication, and can vouch for the good results recorded therein. ED.

DEAR SIR—As I notice some discussion going on, respecting the value of mineral manures for fruit trees, I send you the following brief notes on this subject:

Having heard it stated that the sweepings and cinders of a blacksmith's shop made an excellent manure for the pear tree, I determined to make trial of it.

Accordingly, four years ago this spring, I procured three or four cart loads of this material. It was composed of a variety of matters,—cinders of the forge, fine scales

of iron, iron filings, parings of hoofs, clinckers, charcoal dust, and the ashes of bituminous coal; the latter constituting probably about one-third of the whole.

In order the more satisfactorily to know the result of the application, I chose for the purpose some rows of dwarf pear trees, in a piece of strong loamy soil. They had been planted two or three years.

I put *a bushel* of the sweepings referred to around every other tree, in each row,—leaving the alternate tree untouched, but receiving in other respects the same treatment and culture.

After applying the blacksmith's sweepings, I spread it over the ground as far as the roots extended, and turned it under about three inches deep.

The first year there was very little, if any, effect perceptible. All the trees were in good condition; those that received the dressing and the others nearly alike in growth and health.

The second year, the dressed trees took a start. They grew a third more in height than the others in the same rows; the wood was stronger, and the buds longer.

Last year the same difference in growth and vigor continued; so that now the trees are—some of them—half as large again as those not dressed with the sweepings. I have observed, also, that the leaves are a darker green, and the fruit, though not much larger, has been much fairer in appearance.

The result was so satisfactory that I have since engaged all the sweeps that are to be had in my neighborhood, and mean to try them upon other fruit trees.

I must also be allowed to add that *four* pear trees, to which I gave, by way of experiment, a peck of *leached* wood ashes each, at the same time with sweepings, have all along been decidedly the most vigorous of all, and have borne the finest fruit.

I follow the plan suggested some time ago in the Horticulturist, of keeping the trunks of my pear trees sheathed with straw all the year round; and since I have done so, have not been troubled with blight.

Yours, P. M. C.

New-York, May, 1850.

ON THE GOOD EFFECTS OF MULCHING.

BY A CONSTANT READER.

Sir—It seems to me that when any one has found a practice in horticulture not generally known to be of great value, he owes it to his neighbors and fellow laborers in the cause to make it public.

I tried the value of *mulching*—i.e., covering the soil over the roots of trees with straw, litter, sea-weed, or whatever else may be most convenient for retaining the moisture, keeping the earth cool, and preserving a uniform temperature—pretty extensively last year. I not only mulched newly transplanted trees, but garden vegetables, egg plants, okra, &c. Encouraged by the good results, I covered the ground under melons with straw; and this year am trying it with various flowering shrubs and plants.

The great advantage of mulching is unquestionably for transplanted trees. I think it may be safely said that a tree having only one-third of its original roots left, (and the top, of course, shortened-back in proportion,)—such a tree as would die nine times out of ten with common treatment of watering, &c.—may be invariably saved by

mulching. Watering trees that have been transplanted every day or two for a month or six weeks afterwards, as I have seen many do, is a matter of no small labor and cost. It helps to kill the tree, I am satisfied; if not by the constant and violent alternations of wet and dry, which the tree suffers in this climate, then with the hardening and baking of the ground which it causes. On the other hand, the tree once planted, it can be mulched (if the materials are at hand,) in five minutes; and from that time forth it demands no more attention—no carrying of water—no stirring of the ground. The ground is also kept in that state of steady moisture and coolness most favorable to the growth of new roots; and if there is any vital power in the tree, it is sure to show itself in this way.

As to the importance of preventing the soil from parching up in the summer, especially when you are raising somewhat delicate plants, every one can see it for himself, without demonstration. I have found it easy to cultivate some garden favorites in this way, that gave me a good deal of trouble before I tried it. Indeed, so great is its efficacy that some German agricultural writers, as you are doubtless aware, have not hesitated to take the ground, that covering the ground with a coat of straw acts more beneficially upon a crop than giving it a coat of manure of any description. Although I am not prepared to take this extreme ground, I am confident that mulching, especially to the fruit and ornamental tree-grower, is a practice of great value, and much too little understood by most persons. Yours,

A Constant Reader.

Dutchess county, N. Y., May, 1850.

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Remarks.—Our correspondent is not a stronger advocate of the advantages of mulching than we are. Indeed, we have, for the sake of experiment, covered a piece of ground with straw in the German manner, in a small vineyard of about an acre in our own premises, in order to notice if there is any other value in the application than that arising from maintaining the soil in the best condition for growth. Ed.

REPORT ON THE FRUIT GARDENS NEAR PARIS.

BY ROBERT THOMPSON, OF THE HORT. GARDEN, LONDON.

[From a long and valuable report, made to the Horticultural Society of London (*Journal Hort. Soc.*,) by Mr. Thompson, the able superintendent, we extract the following pages, which will be found exceedingly interesting to *all growers of choice fruit trees.* The theory and practice of *pruning* fruit trees are better understood in France than in any other part of the world; and if practical lectures, like those given by M. Hardy, in the Luxembourg gardens, could be delivered in some agricultural or horticultural school in this country, they would be of incredible advantage to the progress of scientific fruit culture. Ed.]

The garden committee having considered it desirable that I should proceed to France for the purpose of reporting to the council what I might observe most worthy of notice in the fruit and kitchen gardens there, it was deemed expedient that I should proceed thither early in the spring, on account of seeing the operations of pruning and

training, as well as to embrace the opportunity of availing myself of the important assistance of Mr. Francis Rauch, which might have been lost by delay: the period of his stay at Paris being then uncertain. Having resided four years in and near Paris for the purpose of accurately observing everything connected with horticulture, he was eminently qualified for the task he kindly undertook of conducting me to places most important to be seen in regard to the object of my mission, and likewise for obtaining the best possible information, on all essential points, from the various horticulturists whose establishments we visited.

I accordingly went from London to Southampton by railway, February 27th, and sailed the same evening for Havre, where I arrived next morning. Here there was little to be seen interesting in a horticultural point of view. I observed, in passing through the market, some good specimens of the Easter Beurré pear, exposed for sale under the names of Bergamotte de la Pentecôte and Doyenné d'Hiver. This, with some Old Colmars, St. Germains, and Catillacs, were the only kinds of pears worthy of notice. Of apples they had some good Reinettes du Canada, which they call Reinette du Canada, or Reinette de Bretagne; some Nonpareils, Reinette Grise, Pigeonet, Reinette Franche, Reinette de Caux, or Belle Reinette de Caux, a very handsome variety, and, from being generally exposed, its cultivation must be rather extensive in this part of Normandy. There were several varieties of apples named Reinette Franche; the one so called at Havre is the same as the Reinette Franche Grauwe of the Dutch, and is an excellent late dessert apple.

Of vegetables, Salsify and Scorzonera were very plentiful; so much so that it may be inferred the demand must be much greater than in London. Cabbages and savoys were rather indifferent, but Brussels sprouts were good. The excellence of this green is certainly not sufficiently appreciated in England, where it is apt to degenerate in many situations, but in others there is proof of its seeds having been saved for years as genuine as any imported from the neighborhood of Brussels; the plants producing abundantly *jets*, or sprouts, as round and compact as they possibly could be.

I proceeded, March 3d, to the *Jardin des Plantes*, Paris, and saw the arboretum, the plant-house, Ecole botanique, and nurseries for ornamental plants; and afterwards the economical and fruit-tree departments, which are exceedingly well managed under the superintendence of M. L. P. Cappe.

The pyramidal trained pear trees are from 10 to 15 feet high, or more, having a regularly tapering outline from the base to the top, where they terminate in a single shoot. The young plant is stopped according to its strength, and so as to furnish side branches. These are not in stages at uniform distances along the stem; on the contrary, almost every shoot which breaks out from the stem is allowed to grow; but the laterals produced on these are pinched in summer, and even such of the leading shoots as appear likely to become too strong for the others are stopped. All the cultivators from whom I had an opportunity of obtaining their opinion on the subject, admitted the advantages of summer pinching; whilst some regretted that circumstances prevented them from practicing it to the extent they could wish. It is, however, well followed up by M. Cappe. He pinches all the young shoots, not required to form branches, when in a very young state; when they have scarcely pushed a finger's length, they are shortened to about an inch, or from that to an inch and a half. The portion left forms the basis of one or more fruit buds, bearing fruit in the following season, or a spur on which blossom buds are formed for bearing in the second season.

The advantages consequent on properly managing fruit trees with regard to summer pinching, are so important that attention to the subject cannot be too strongly urged. On the whole, it occasions little or no loss of time; for the confusion which would otherwise accrue is prevented; and this being the case, it is only doing that in summer which, if neglected, would occasion as much loss of time in winter. I am aware that many have more time to attend to trees in winter than in summer; but let the advantages of summer pinching be experienced, and doubtless, in most cases,

due provision will be made for its performance. By the operation, the shoots necessary to be retained have the great advantage of more light and air than would be the case if crowded by a multiplicity of laterals, retained till the time of winter pruning, when they must obviously be cut off, either so close as to leave no bud to push, or shortened to within a few eyes of their bases. In the former case the branch is left naked; in the latter, when the tree is sufficiently vigorous, the eyes left generally push other shoots, to be again cut back in winter; and thus crops of shoots are annually produced, instead of fruit, for many years, or until the tree approaches the state of old age.

The plan which M. Cappe pursues succeeds admirably in the climate of Paris. The fruit on the pyramid pear trees under his management is stated on competent authority to have been last year exceedingly abundant, large, and fine. This season the trees are healthy and vigorous, and well furnished with blossom buds. It may be said that the generally dry, clear air of Paris is very different from the cloudy and moist climate of many parts of Britain; the one being favorable for the formation of fruit buds, whilst the other favors the growth of wood and leaves; and therefore, circumstances being different, the same practice may not be equally proper for both. There are, moreover, instances of circumstances differing so widely as to require opposite methods of culture. But this does not hold good as regards summer pinching. In England the drawback is a dull atmosphere; the shoots and foliage want more air and light. Summer pinching affords this, inasmuch as it prevents the crowding and shading of wood and leaves necessary to be retained, by that which is superfluous; and therefore it must be considered of still greater utility in dull climates than in bright, more necessary in England than in France. It is generally admitted that "where nature does most, man does least;" but with regard to the management of fruit-trees an exception must rest till summer pruning receives as much attention in England as it does in the Jardin des Plantes, and elsewhere in France.

Supposing the branches of a tree are properly thinned and regulated at the winter pruning, and that so far as they extend, their number is quite sufficient for the space they occupy; presuming, also, that the tree is in good health, a number of laterals are sure to spring. They are, of course, superfluous; and every one of them should be pinched as already mentioned. If the last year's shoot has been shortened at the winter pruning, then, besides the terminal one on the part left, one, two, or three next to it are almost sure to push; and these M. Cappe commences to check by pinching when about three inches in length; but those nearer the base of the shoot he allows to grow till they attain the length of six or eight inches before he shortens them. The terminal bud is of course allowed to go on for the prolongation of the branch. It frequently happens in France, and the liablity will be still greater in the climate of England, that after a shoot is pinched back, the newly-formed buds on the part left will push a secondary shoot in the same season. When this is the case with those under the care of M. Cappe, he also pinches these secondary shoots to an inch or an inch and a half from where they originate. They rarely push again; but if they do, their growths are again reduced as before.

The *winter pruning* of pyramid Pear-trees is almost reduced to a mechanical operation, when the summer management has been properly attended to. Keeping the tapering form in view it consists in cutting each shoot a little shorter than the one immediately below it, taking care to cut to a bud situated on the side of the shoot towards that direction in which it would be most desirable the prolongation should proceed. Shoots that are too vigorous for the rest are not cut to a bud on the upper side, but to one situated below.

Some trees appear to be much admired by everey one on account of the introduction of another feature of regularity in training, besides that of a merely tapering contour. These had what is called a *tutor*, —that is a straight perpendicular stake, to which the stem is trained; and from the top of this stake five wires are stretched to as many equidistant points on a hoop near

the ground, or in one instance to five short stakes. The wires represent the angles of a five-sided pyramid—a pyramid apparently fifteen feet high on a pentagonal base. Branches are trained directly from the stem to each of the wires. In order to convey some idea of these trees, one may imagine five upright trellises or screens projecting from a central upright, forming the partitions of as many equal recesses, widening outwards. The branches form such partitions with good effect as regards regularity; and when they become ornamented with leaves and fruit the whole must prove an interesting sight. The trees had a fruitful appearance.

Instead of the branches radiating from the stem in five directions, it might be found more convenient to train them out to four points, say east, west, north, and south. It may, however, be observed, that, in the pear tree, five buds form a spiral once round the shoot or stem; or, in other words, supposing the leading shoot to be perpendicular, every fifth, tenth, fifteenth, &c., bud will be in the same vertical plane. Therefore, if the number of buds between one branch and that next above it be always a multiple of five, the branches radiating in each of the five directions will originate exactly above each other.

The trees above described had been formerly grown as pyramids in the usual way, with branches extending promiscuously; but M. Cappe is of opinion that by commencing with a young tree, the tutor and wires may be dispensed with. In exposed situations the wires form excellent stays; and where they are employed, a comparatively slender stake will be sufficient.

A curious specimen of trellis-work was standing against the end of one of the sheds adjoining the plant houses. It had been formed by crossing and inarching the branches of apple trees, so as to form rhomboid interstices. The piece had been grown from three stems, and was three or four feet high. The branches were so completely united, that although the bark was partly off, and the wood somewhat fissured by exposure, it was impossible to say with which stem in particular the vegetation of the respective branches had communicated. I am of opinion, that if any one of the stems had been sawed over, the branches it supported would have derived nourishment to keep them alive from the other roots. It appeared to have been removed from the place of its growth many years; but previously it must have formed part of a very strong living espalier.

Several of the hot-houses are very old, and will probably be pulled down as soon as the contemplated additional new ranges are finished. At present there is not half sufficient room for the large collection they contain. The new palm house is lofty; and in it there are some magnificent specimens.

In some of the hot-houses, heat is derived from large stoves of white stoneware, placed inside. They have apertures at the sides for supplying heated air, somewhat resembling the Polmaise system. They are adapted for burning wood, and appear to have been in use for many years. The state of the weather required them to be hard at work when I had the opportunity of seeing them.

In the Ecole de Botanique, the plants are named on different coloured labels; Red, indicating plants used in medicine; Green, alimentary; Blue, those employed in the arts; Yellow, ornamental; and Black, poisonous plants. I may here mention that M. Neumann, who has the superintendence of the plant houses, was for some time in the Mauritius. He informed us that the Aërides odoratum is there used as tea, a very few leaves being sufficient for infusion. I thought it might be employed merely for imparting a flavor to the tea; but he said they used the Arëides leaves without employing any other along with them.

Gardens of the Luxembourg.—We proceeded to these gardens, March 5th, to hear the lecture on pruning, by M. Hardy, at 8 A.M., in the open ground. M. Hardy delivers two lectures every week, free to the public, on pruning, grafting, planting, and in short, everything connected with the management of fruit trees, finishing the course in the end of April. He has generally from 300 to 400 hearers, among whom are young men employed in the Luxembourg Gardens, the Jardin des Plantes, and other establishments, by permission of

the respective directors. In various instances the young men afterwards make up for the time they are thus absent. But the greater number of those who attend are amateurs. M. Hardy also lectures in the afternoon to gentlemen wishing to obtain a knowledge of the management of fruit trees. The admittance for each person to any one of these is, however, 3 francs. From fifteen to twenty gentlemen usually attend the afternoon lectures.

In his first lecture, I was informed, M. Hardy explained the physiology of the tree, the action of the sap, the names of the different parts of the tree; the stem, branches, and the technical distinctions of the latter, such as *Rameaux à bois*, *Rameaux à fruit*, *Brindilles*, *Lambourdes:* branches for wood; branches for fruit; fruit bearing twigs, and spurs. The term *brindille* requires however a little more explanation: Pear trees recently raised from seeds are usually armed with thorns, a provision for the defence of the young plants; but naturally, as the trees get older, and more especially when influenced by cultivation, the thorns are produced less abundantly, and by degrees they disappear. The thorns latterly produced lose their original character. Instead of being naked, one, two, or more very small buds may be observed upon them; but still they are pointed, and this being the case, they yet retain the characteristic of a thorn, and cannot elongate in the following season. Some after productions may however be seen to terminate in a small bud, and the substance throughout is much softer, but still harder than the regular shoots on other parts of the tree. These growths may be then looked upon as thorns modified; they become capable of elongation, and are what the French term *brindilles.* They proceed at right angles from the branches producing them; and are not inclined to grow upright. They sometimes bear fruit before the other branches; but when the trees get into full bearing, these brindilles are not required.

M. Hardy concluded by showing how to handle and properly apply the knife.

The second lecture, he took a maiden plant, and explained how it ought to be dealt with according to the modes of training for which it might be intended; then a plant two years old; another three, and so on.

For the third lecture, at which I was present, he had a pear tree, intended for a pyramid, planted in the centre of a circle, formed by a rope, about fifty feet in diameter, outside of which the people stood to hear the explanations, and see the mode of operation. In the tree selected for illustration, M. Hardy pointed out faults from not pinching the shoots in the previous summer; and some others in consequence of former winter pruning. The reasons for cutting each branch as he did, were successively given, as well as an explanation of the bad effects of cutting otherwise; and ultimately the pruning of the tree was completed in good style. We had an opportunity of closely examining it after the lecture was over.

We then inspected the different quarters planted with pyramid pear and apple trees, and those containing cherry and plum trees. As there is no wall for peach trees, these are trained against a trellis, backed with straw mats; and with this assistance the fruit ripens perfectly well.

All the quarters containing fruit trees are surrounded with borders, planted with cherry, plum, and apricot trees, as standards; and some with excellent effect are trained in form of a *vase*, or *en gobelet*, dwarf, or with a stem five feet or rather more in height. The head is formed hollow, in shape like a goblet, the shoots being annually tied to hoops of wood, adapted to the circumference required to give the desired form. Two hoops are sufficient, the two-year old wood being tied to one; and the equidistant regulation of the one-year old shoots is effected upon the other. As the *vase* or *goblet* widens, of course hoops of greater circuit must be prepared, either of new materials, or by introducing an additional piece. In some instances the hoops were formed of round, apparently one-fourth inch, iron rods; but wood is preferable to iron, for vegetation in contact with the latter is apt to be injuriously affected by the rapidity with which it heats and cools. Shoots are apt to spring up in the centre of the goblet; but they must be pinched in summer; and so

all other irregularities of growth appear likewise to have been. The form is very ornamental; it can be produced at little expense; and the trees were well furnished with fruit buds. Suppose a tree to have 6 shoots, let them be tied at equal distances to a hoop placed horizontally, and then shortened a few inches above it, or so as to leave them a foot or more in length. From each of these, two shoots may be trained to the outside of a somewhat wider hoop in the following season; and thus by annually introducing hoops of a width proportionately corresponding with the respective diameters of the vase intended to be imitated, the desired form will ultimately be produced. The head of the tree will be completely balanced; and the branches will be more nearly equidistant than they could be by any other mode of training as a standard. I should prefer wooden hoops to iron ones. If weak, or if two or more pieces must be employed for the hoop, its circular form may be preserved by two small rods, secured diametrically across it.

Adjoining the fruit tree quarters there is a compartment used as the Experimental Garden of the Royal Agricultural Society of Paris. The space, however, is too limited for any extensive experiments being undertaken; and the backwardness of the season had prevented any thing interesting from being commenced.

The Botanic Garden of the Ecole de Médicine lies in a low situation; but this is doubtless an advantage in the hot dry weather. The plants are disposed in straight beds.

In one of the quarters there is a collection of 1800 vine plants, from all the departments. This was chiefly formed by Chaptal, when Minister of the Interior, in order that their nomenclature might be settled, and their respective merits ascertained. I am not aware that the original intention has been fully carried out; but the vines are still kept in good order.

It may be interesting to mention, that in the Gardens of the Luxembourg, and Jardin des Plantes, the best collection of fruit trees in France, that of the Chartreux, was preserved; and also that from these gardens the sorts were obtained by the society when the collection was forming for the garden at Chiswick. This was the best source whence the identical varieties described by the celebrated Duhamel could be obtained, as appears by a communication from M. Thouin, appended to a list of grafts sent to the society in 1820, and of which the following is a translation:

"Various causes having prevented my worthy colleague, M. Bosc, from taking off the grafts requested for the Horticultural Society of London, from the nursery of the Luxembourg, he begged of me to make the collection. This I undertook with the greatest pleasure, as, in obliging my friend, I may also render a useful service to an honorable body to which I am proud to belong.

"The society may be assured that the names of the grafts precisely correspond with the varieties described by Duhamel (Traité des Arbres Fruitiers, Paris, 1768.) The following are the means which were employed, by which we are able to accomplish so important an object.

"In 1793, when the question was agitated of suppressing the monasteries, and placing their property at the disposal of the state, foreseeing the destruction of the garden of the Chartreux at Paris, and anxious to preserve to horticulture the originals on which Duhamel had established his nomenclature, I begged and obtained permission from the minister Roland to remove whatever trees I pleased from the complete collection which that garden contained. They were labelled according to the Catalogue of the Chartreux, and transplanted in the garden of the Museum, where they were arranged in such a way as to form a school for the instruction of nurserymen, gardeners, country gentlemen, and even botanists and physiologists.

"The garden of the Chartreux was soon after destroyed; there remained no vestige of it; and it was not till ten or twelve years after, that it was re-established in the Luxembourg, by rooted plants or grafts taken from our school of the Museum, in the Jardin des Plantes.

"On the formation of that school I invited Christopher Hervy, gardener to the Chartreux, a man well informed on the subject of fruit trees, and who supplied Duhamel with a great portion of his no-

menclature, to make a general examination at the periods of the flowering and fruiting of the trees, to prove the identity of the names of our varieties. This labor was pursued during the first six years of our plantation in the school, in such a way as to correct errors which might have crept in. There now, therefore, remains no doubt on this head. But this is not the case with many of the varieties obtained from various parts of France, and more particularly from abroad, since the publication of Duhamel's work. The nomenclature of these is vague; in many cases the sorts have proved synonymous with those already known; and it is necessary to wait till the trees have fruited in order that they may be correctly named."

It thus appears that the collection of the Chartreux, made during a period of 150 years, was preserved by the exertions of M. Thouin; and of that collection the Horticultural Society of London received with the above communication, grafts of 48 varieties of plums, 99 of apples, and 145 of pears. Peach and other kinds of fruit trees were subsequently forwarded from the same source.

CRITIQUE ON THE APRIL HORTICULTURIST.

BY JEFFREYS, NEW-YORK.

Your Leader.—Yes, old-fashioned stage-coach travelling, to one who loves to see the country as he passes through it, *was* something. In pleasant weather, whenever I could, I always mounted the seat with the driver, and thought it a privilege. And I enjoyed it, too; for I could then see the country to the best advantage. But this hop-skip-and-jump method of rail-roading is death to the *poetry* of travelling, although one may occasionally, in fine weather and open cars, take a rapid and tolerably satisfactory view of the chief features—but nothing beyond—of the country he passes.

It is amusing, now and then, to see how *very* particular some travelling gentlemen are, to notice *all* the features of the country over which they pass, and then *journalize* them, for the edification of the good public, both at home and abroad. I give you an instance from an eye-witness. When Dickens was in this country—where, on his arrival, the leaders of the literati in Boston and New York made especial "Judys" of themselves in his reception, for which he afterwards very characteristically paid them off in abuse—he went, as every foreigner does, to Niagara. When at Buffalo he took the cars, which follow, for most of the way, close upon the bank of the Niagara. One would have supposed that a river like that,—world-famous for its cataract, its rapids, its frightful chasms, as well as for its beautiful, placid, and bay-like scenery,—would have attracted his attention. But quite another thing. Mr. Dickens, with his wife, entered the cars, pulled some papers from their pockets or bundles, looked over them the whole way, with an occasional interchange of monosyllables to each other, and scarce looked out of the cars, though a pleasant summer day, until they arrived at the Falls, when they instantly removed their luggage to the truck, and went with it at once to the ferry down below the cataract, without waiting a moment, or asking a question, excepting which was the readiest way into Canada! And that, too, when he had been kindly furnished with letters to sundry gentlemen, sojourners there, who had also been requested by their friends in New York, to pay him the usual attention

given to distinguished foreigners, in showing him the attractive features of Niagara scenery, as well as their hospitalities! There is a traveller for you, fit to describe a country! and he is a type of hundreds. Yet DICKENS wrote a book when he got back to England, "describing" our American *scenery*, as well as manners!

You perceive that I have, thus far, but commented on the metaphor which introduces you to the subject of discussion. No matter. It is a good text for my purpose, so far.

I am glad to see you blow up those foreign gardeners, too many of them quacks, as almost everybody here, who has had occasion to employ them, pretty well knows, although there are many practical, good, modest men among them. But I have rarely known any one of them who, according to his own story, was gardener, when in England, to any thing *less* than a Duke, and left his Grace's employ because things were not satisfactory to his—the gardener's, mind you—satisfaction! What work do we often see in the first essays of these "highly educated" gentlemen gardeners, in *our* country! Put them to school at once on their arrival, and in time they'll become what they now profess to be—good for something.

Rough Notes on Horticulture, &c.—Were I to say what I well might say, from the little personal knowledge I have of Doctor KENNICOTT, your readers would think we were bandying compliments; therefore, I'll let him pass for the present. But I do like such "notes." There is a freshness about them *sui generis*. Excuse my Latin, for I can find no English that gives the exact idea like it. I'd like to have a long summer's day horse-back ride with you, Doctor, over those grand Illinois burr-oak openings —lunch in saddle-bags—old fashion—with a clear spring, under a broad tree, to eat it by—and then a long winter's evening, before that crackling hickory fire, in your log house, where stars would shine upon us through the chinking. Rely upon it, we'd make a *stretcher* of that same night, before we got through with it. How many delightful—aye, glorious—nights have I passed in those same log-cabins, stretched before their huge fires on a Buffalo-skin, in years gone by! Yes, when, after a long social evening to close an active day, promiscuously, in the same primeval attitude of rest, lay scattered, judges, lawyers, suitors, and travellers, during their sojourn at the new county-seat, in court term! And among them are since some of our eminent jurists and statesmen. Oh, what a training does this same woods and prairie life, to finish off with, give, in energy and practical character, to our American men!

But, to the point. The great states of the west are to be the future fruit paradise of America, and 'tis most cheering to all lovers of fruit cultivation, to hear the success of the efforts made there to produce them.

The Uses of Charcoal.—There can be no doubt of it. It is the greatest purifier and fertilizer in the world—in its own way. It can hardly be applied too freely—let it be only pulverized thoroughly.

On the Beauty of our Indigenous Plants.—Here is one who talks up to the mark. Had Dr. COMSTOCK done no more than bring the splendid *native* shrubs and plants and flowers into notice in this manner, (why don't he give their common or vulgar names, together with the scientific ones?) his services would deserve a gold medal, and the especial thanks of the whole gardening community. Let any one who doubts the splendor and beauty of our wild American flowers, but spend a summer among our

western prairies and broad oak openings, in their wild, luxuriant estate, and then see what floral treasures they will disclose! From earlist spring to latest autumn—from the tiniest, trembling thing that shoots its pale blossom through the young and reeking grass—onward, through every week of summer, in white, and blue, and red, and yellow garniture—from dwarf to giant—does the wild flower of the prairie bloom, and wave, and sweep, in unmatched variety and magnificence—redolent, too, of odors most sweet, and arrayed in colors most gorgeous. What a mine is here for the labors of one who loves to investigate the floral treasures of our country!

And the Kalmias and the Rhododendrons which grow on every rocky, spongy, scrubby hill of the New England and Middle States, covering, in their season, with rosy clumps of blossoms, a thousand spots where hardly a thing else will grow! Beautiful to the *sight* alone—their only drawback.

> "Full many a flower," the poets say,
> "Is born to blush unseen;"
> But you, although you blush, are not
> The flower the poets mean.

So sung Halleck, twenty years ago and upwards, not to the Kalmia, but to quite another sort of subject. If you want to see the Kalmia in all its magnificence, go to the mountains and hills of Pennsylvania, and particularly to the valley of Wyoming, "on Susquehanna's side," which Campbell has filled with such delightful images—the sweetest valley in all the world! From base to pinnacle, in the month of June, they jut out among the crags, and over the prominences, in one universel blush of rosy grandeur. Did you ever, Mr. Downing, travel along the valley, up or down the banks of the Susquehanna? If not, you have yet to see the most beautiful, picturesque and varied river in America, in all its features and scenery, from its source in the limpid Otsego, away down to the turbid and briny Chesapeake. What beautiful meadows; what warm and sunny slopes; what picturesque hills, and magnificent mountains, does it sweep, in its course of swift, and still, and rippling, and glassy waters! "Thanks be to God for mountains!" eloquently exclaims William Howitt, in his most charming "Book of the Seasons." Aye, and thanks, too, for the lofty trees which clothe their sides and crown their tops, and the broad rivers which sweep their base, that William Howitt never saw as we have them here in America. But I must stop; I am a great way off my text, and will come down from my stilts, and leave this "prose run mad" for another time.

Editorial Note to "the Critic Criticised."—"Jeffreys must allow us to show him that he entirely misunderstands Mr. Davis' design." Certainly; I *have* mistaken the "design" of Mr. Davis. In my simplicity I did suppose a house should be the main, or principal structure, and that a porch and its gable should be an *appendage*. But I find that I am so verdant as not to understand the *improved* architecture of the times. From Mr. Davis' explanation I find that the "design" is "a porch and gable," with a house, *by way of appendage!* Very well; I'll try not to make another mistake of the kind.

Now, as we sometimes see houses *without* a porch and gable, which have answered a very valuable purpose, how would it do to build a porch and gable without the appendage of a house, and see how that would answer? But, without joking, I am yet so much of a novice that I can't help thinking the house itself *should* be the chief structure, and all the appendages subordinate to it. I'll drop the subject. (You

have lost the points of the compass in this house. Taking it from front to the rear gable, is like taking a bird from beak to the tail—that we think would include the main body of the bird. Ed.]

Pomological Notes from the West.—I hope our western fruit-growers will persevere in their good work of observation, until they ascertain, beyond a question, which varieties, whether imported or native, succeed best with them; and only by such experience will they obtain the proper fruits for their purpose. The remarks of Mr. Phœnix are a valuable record, and should be well considered by all pomologists west of the "Great Lakes."

How to treat Peach Trees.—Like all else that our friend "Digger" has to say, this is most timely, and exact to the point. This peach worm is the greatest pest we encounter in the production of that delicious fruit. A few more such articles as these, and they would comprise a perfect handbook for the practical gardener and pomologist.

Review of the late N. A. Pomological Convention.—What a mass of information have these less than half a dozen fruit conventions brought to light within the three past years! and let them continue for two or three years more, he that grows poor fruit thereafter can only blame himself for it. I hope that some clever man will by-and-by condense the reports of these meetings into compact form, and give it to the public, in shape of a book. It would be one of the most valuable works of reference on the subject extant.

A Budget of Queries.—Your correspondent asks why I prefer wire fences to hedges? I supposed I gave my reasons sufficiently at the time. But I will further add, that in their growth and annual clippings, care, replacing, &c., they are the most *expensive* and troublesome fence you can have in the country. The climate—our frosts, and heats, and drouths—are against them. If you wish to see wire fence, go to E. J. Woolsey's place at Astoria, Long Island, and there you will see fence that will turn any thing, from a Cosset sheep to a Durham bull, and built at less expense, to say nothing of time, than the cheapest *efficient* hedge that can be produced—and last almost forever, besides.

Jeffreys.

SUMMER CLIMBING PLANTS.

BY AN AMATEUR, NEW-YORK.

It is needless for me to expatiate on the beauty of climbing plants. Every one knows the charm of a wreath or a festoon; and it is because climbing plants form the finest natural wreaths and festoons, of mingled verdure and flowers, that they are so universally admired. Besides, they render unsightly objects attractive, by concealing them—wholly or partially; and still more, they give a rural and picturesque character to all cottages and dwellings in the country, and especially to those which have little else about their exteriors to make them attractive.

Without entering at large into the subject of vines and climbing plants, I will ask but a few moments from your readers, while I speak of a few *summer climbers;* for it is now too late to plant any other vines except annuals. By *summer climbers*, I mean ten-

der or half-hardy vines, which may be obtained in pots, and which, when turned out in the open border, in good rich soil, by the side of the veranda, the latticed porch, or the trellis in the flower garden, will soon clamber to the top of such supports, and look gay and fresh all summer. Late in the autumn they may either be left to their

Fig. 119.—*Climbing Cobea.*

fate—a supply for the next season having been provided for at mid-summer, by making cuttings of some of their young shoots—or some particular sorts, as Passion flowers, may be taken up and kept in the greenhouse during the winter, to be turned out again in the spring.

I. The Climbing Cobea, (*Cobea scandens.*)—The most luxuriant and rapid growing of all summer climbers. A single small plant—such as may be had in a pint pot at any of the principal florists on the first of June—may be planted out in a good soil, and will cover the side of a house, wall or trellis, 20 or 30 feet square, by November, growing and blooming till the black frosts overtake it. The *Cobea* is not a new plant, having been discovered in Mexico by a Spanish botanist, Cavanilles, in 1789, and named by him after his friend, Cobo. The flower is large, (nearly three times the size of the annexed figure,) and has the curious habit of coming out quite green, and changing colour gradually till it is a fine dark purple. As the plants bloom abundantly in a sunny exposure, it is quite showy for a long time. Having little tendrils at the ends of all the shoots and side branches, it will catch hold of a *rough* wall or trellis, and support itself without tying. Altogether, the Cobea is one of the most useful of summer climbers,—especially to those who wish something to "cover up fast," and produce an immediate effect. Only give it *rich* soil, and it will go on at an astonishing rate. It ripens seeds about Philadelphia; but here, is usually propagated by cuttings.

II. The Maurandias, (*Maurandya Barclayana.*) The prettiest of climbers are the Maurandias; their foliage is so neat, and their flowers so beautiful in form and colour. They are borne, too, in the greatest profusion; so that every day during the whole summer the plant is in bloom. The habit of growth is also elegant,—clambering over the slender trellis to the height of six to ten feet. The oldest and best known sort is the purple flowering Maurandia, (*M. Barclayana.*) But we have now two other beautiful varieties, viz., the White Maurandia, (*M. B. alba,*) and the Rose-

coloured Maurandia, (*M. B. rosea.*) When the three are planted side by side, one heightens the effect of the other. The Maurandias are propagated like the Cobea, by seeds or cuttings; usually, a few cuttings are struck in August for the next year's stock,—the old plants being allowed

Fig. 120.—*Tropæolum Lobbianum.*

to die with the severe frosts of autumn, though they will hold out uninjured to the very last. This genus, also—Mexican—was named in honor of Dr. Maurandya, professor of botany at Carthagena.

III. Lophospermums—*cousins* of the Maurandias, and much resembling them, and differing mainly in having larger and rougher leaves and larger flowers. The latter are mostly pink, or purplish. *L. scandens* is the most common, and *L. spectabile* the prettiest. The flowers—not unlike foxglove—scattered here and there, singly, among the leaves, are quite ornamental, and are produced, like the Maurandias, for a long time.

IV. The Buenos Ayres Vine, (*Physianthos albens.*)—White flowering, climbing plants are scarce; and this is one of the prettiest and most useful of summer climbers. It comes from Buenos Ayres, and was kept for some time in the green-house; but now, that it is found that it does so much better as a summer climber, turned out at the foot of a trellis, or the column of a piazza, it will become far more popular than before. A specimen grew in my garden up a pillar 20 feet high last season, and bloomed most profusely for two or three months. It likes a *deep*, rich soil, and a sunny exposure. The foliage is dark green, (but whitish on the under surface,) and ornamental; and the flowers, pure white, are borne in clusters at every joint. The juice of the plant is milky, like that of all the Asclepias family, to which it belongs. It grows freely from seeds or cuttings, and must be treated like the other summer climbers to keep a supply for the next season.

V. The Canary Bird Flower, (*Tropeolum peregrinum.*)—An exceedingly pretty vine—an annual—that may be grown from seeds, planted as late as the first of June. The flowers, of a pretty straw colour, when half expanded, much resemble little birds. The plant is pretty and delicate in habit; and one would scarcely believe, at first sight, that it is a species of Nasturtium.

There is a new Nasturtium—*Tropeolum Lobbianum*—named after Mr. Lobb, who collected it in Columbia, which is a very gay and beautiful summer climber. To bloom well in the open border, the roots of a previous year's growth from seed should be turned out in the border early in this month. The blossoms are bright orange-scarlet, and produce a very gay effect.

VI. Ipomea Learii.—This large and exquisite, deep blue, climbing convolvulus, is a perennial; and small plants in pots, fit for turning out now, are to be had of the florists. It leaves all the morning glories as far behind it in beauty as a La Reine rose does a common briar. Rapid growth

and a fine succession of flowers are among its other recommendations. It will climb 30 feet or more in a summer.

VII. Double Rose Convolvulus, (*Calystegia pubescens.*)—A novel thing in its way, just introduced from China; for it is a *double* flowering convolvulus—only the corolla is not arranged as you might suppose, cup within cup, but with many irregular petals, like a rose. Their colour is a pale pink, very delicate and pretty; and they continue to bloom for some time in July and August. This plant likes a deep, rich soil, and *not* a very warm exposure. Being a perennial from China, it is likely to prove hardy in this climate. As yet, it is rather rare, (though I see it advertised by the dozen, in the April number, by Watson, of Plymouth,) though it may doubtless be had of Thorburn and others. [The Calystegia is an acquisition, and we are glad to find that a plant in our garden has withstood the past winter. Ed.]

Fig. 121.—*Double Rose Convolvulus.*

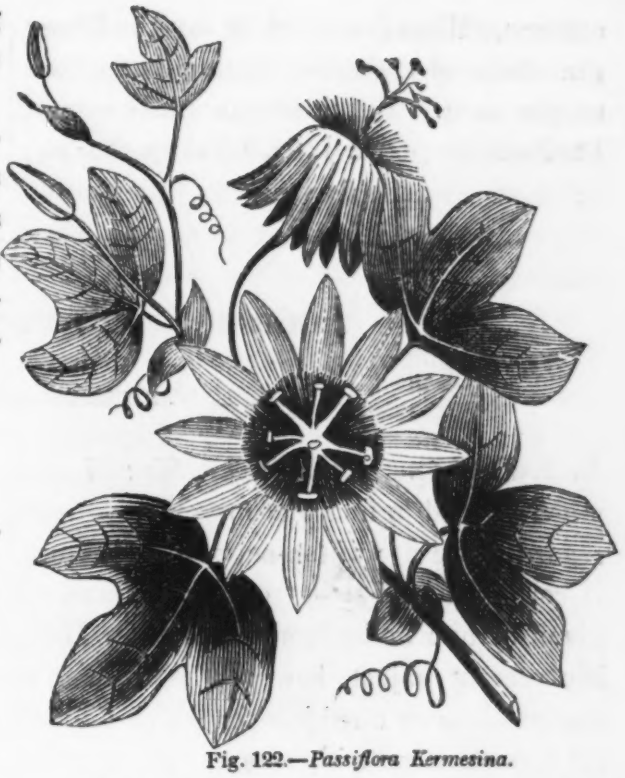

Fig. 122.—*Passiflora Kermesina.*

VIII. The Crimson Passion Flower, (*Passiflora Kermesina.*)—I close my list of summer climbers with this—a greenhouse plant, which perhaps surpasses them all. It is certainly the most profuse flowering, graceful, and showy of all passion-flowers; and passion-flowers are perhaps the most interesting of climbers. I succeed in getting a fine bloom of this passion-flower by shifting a strong plant into a good sized pot with rich compost, and plunging the pot up to the rim in the open border, at the foot of a trellis about the beginning of June. Here it will take care of itself, and grow freely,—reaching the height of some ten or twelve feet by autumn; and during the months of August and September it gives me a great quantity of flowers. The latter are not so large as some other passion-flowers, but are of a rich purplish

crimson, relieved with white rays, and very graceful and showy,—hanging in festoons on the plant. Just before the frost comes, I reduce the top a little, take up the pot, and carry all into the green-house, where it will flower a month longer.

Yours, AN AMATEUR.

New-York, May 18, 1850.

TAN-BANK FOR MULCHING GRAPEVINES.

BY H. W. S. CLEVELAND, BURLINGTON, N. J.

A. J. DOWNING, ESQ.—*Dear Sir:* I am much pleased to find that my experience in regard to the use of tan-bark on grapevines is corroborated by that of Mr. FERRIS, as given by him in the Horticulturist for May. My present object, however, is to offer a few remarks on a subject for which his letter furnishes me with a text. He says he had thought of giving his experience before; but "concluded that old gardeners would laugh at me for bringing coals to Newcastle."

I have no doubt that many a person is prevented from giving items of his experience to the public by the same feeling; which is, indeed, a natural one, but in my opinion one which should be overcome. If the object of the Horticulturist were to instruct only "old gardeners," it would be presumptuous in any but experienced and scientific men to speak. But I regard the readers of the Horticulturist as an assembly of friends, who meet together once a month for mutual instruction and entertainment. Among them are a large portion who are no farther along than myself; and I consider it a sort of duty in each to impart whatever information will be serviceable to others.

The common feeling, however, is that such and such a matter of one's own experience is too trifling to be made public; whereas, in truth, such practical instances of the application of principles are often of great value, and *contain precisely the kind of information which one cannot get from scientific works.*

Will you pardon me for alluding again to my own communication, for the sake of illustration? When I first thought of applying tan to the border of my vinery, (intending it only for a mulching,) I inquired of several of my neighbors, some of whom were "old gardeners," whether there was any danger of injury to the vines,—the tan being, as I said, fresh from the yard. Not one had ever seen it used in a fresh state; and almost all thought it dangerous to apply it without composting it for a year at least. A single season's experience contradicted all their theories; and having occasion to write you, I thought the fact thus established worth mentioning for the use of others. It would have saved me much doubt and anixety if I could have known it six months before.

So much for that. Now one word on a different subject. Considering the writers for the Horticulturist in the light of speakers before an audience, and perceiving in the May number a notice of "Jeffreys," which sounds very much like a hiss from one side of the house, I wish to say that there is a knot of us here who are ready to come down in opposition to it with feet, hands and umbrellas. Without having the

slightest suspicion who "Jeffreys" is, so long as he talks as well as he has done heretofore, we are ready to cry "hear."

Yours truly, H. W. S. CLEVELAND.

Oatlands, May 18th, 1850.

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REMARKS.—We cannot let the opportunity, afforded by Mr. CLEVELAND's excellent hint, go by without adding a word or two, corroborating, editorially, his opinion respecting the reluctance existing in a large class of our readers about giving the results of their experience—and results, too, very important to them—but which they imagine too trifling, or suppose everybody knows them already.

It is precisely this kind of information that our readers most want; and we hope those who have it, in any shape, will, as Mr. C. has well said, feel that it is a *duty* to make it public. A practice the most familiar and successful in one part of the country, is often quite unknown in another; and its publication may not only assist beginners, but lead to other and better modes, founded upon it. ED.

DESIGN FOR A GOTHIC COUNTRY HOUSE.

BY AN AMATEUR.

THIS design (see FRONTISPIECE,) is the production af an amateur, and has been placed in our hands for publication.

It is an attempt to produce a good effect in a rather rude and plain Gothic style, with but moderate cost, and without any elaborate ornament. The walls are to be built of common quarry stone, and the whole is to be finished in a simple, and rather rustic manner.

The plan of the principal floor, offers a rather unusual arrangement. Entering the porch, we may either go into the office or ante-room, A, or the dining-hall,—a kind of hall and dining-room combined. Behind this dining-hall are the kitchen and its conveniences. From it, a passage extends to the right, affording communication with the other apartments. B, is the library; C, a bed-room. At the end of the passage is an octagon parlor; and outside of this a veranda, D, extending round five sides of the room. This veranda is entered by windows reaching to the floor.

The plan of the second story, (fig. 123,)

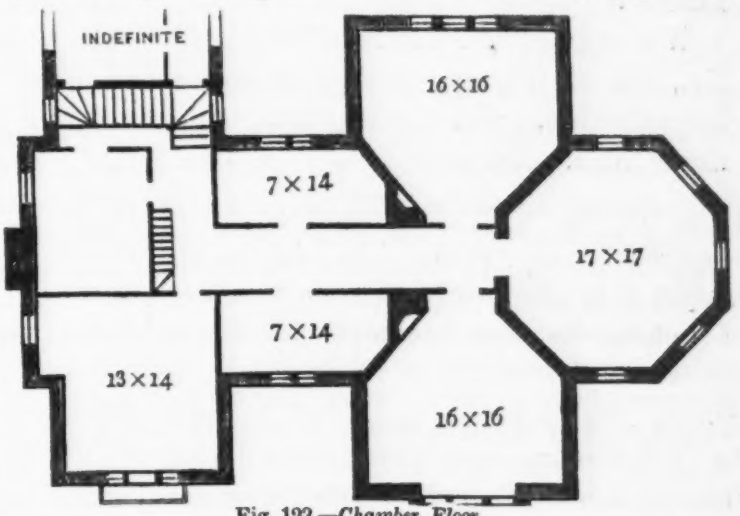

Fig 123.—*Chamber Floor.*

shows five good sized bed-rooms, and two of smaller dimensions.

Of course, a house in this style could only be erected to advantage on a large landed property, and where stone is abundant as a building material.

WHITEWASHING—THE NEW REMEDY FOR THE CURCULIO.

BY L. YOUNG OF KY., AND M. H. SIMPSON OF MASS.

We hasten to lay the following correspondence before our readers, trusting that it may be in time, in many parts of the country, to save the smooth-skinned fruits.

It will be seen that two cultivators, in different parts of the country, vouch for the efficacy of lime in preventing the puncture of the insect which so largely destroys the plum, in many parts of the Union. These communications have been made public by the Massachusetts Horticultural Society, in the Boston Transcript, and we desire to give them a larger circulation in our columns.

The plan strikes us favorably—especially syringing or showering the young fruit with whitewash. But we suggest that the whitewash should be rather thin, and a day old, or we fear it might prove more disastrous to the crop than the "little Turk" himself.

We suppose Mr. Young, of Louisville, Ky., one of the most zealous of western horticulturists, to be the originator of this use of lime. Ed.

Springdale, near Louisville, Ky. July, 1849.

Samuel Walker, *Pres. Mass. Hort. Society*—Dear Sir: In the course of a conversation held with you in Boston, during the autumn of last year, I learned that the curculio was exceedingly troublesome to the growers of the smooth-skinned fruits in your vicinage, and that the Massachusetts Horticultural Society was anxious to elicit any information tending to inspire a hope that it is in the power of art or science to apply a remedy capable of averting so great a public calamity as that which a fruit-relishing community sustains by the repeated yearly losses of its apricots, plums and other smooth-skinned fruits. On that occasion, I hinted to you the result of an experiment with lime, tried upon the plum crop of 1848, and signified a determination at the same time to repeat the experiment before expressing an opinion as to the efficacy of lime, used as a protection to glabrous fruits, which are usually preyed upon by the curculio. Having then promised to communicate the result, I now proceed to redeem my pledge.

The severe frost of the 16th of April last destroyed almost entirely the fruit crop of the West, in all locations where the fruit trees had bloomed as early as the first of April or sooner. This occurrence narrowed the limits of the field of experiment for the current year, until its whole area is of very inconsiderable extent—a few individual fruits, only, outliving the storm of the 15th and 16th of April.

I have thought, however, on the other hand, that a shield capable of protecting and saving harmless throughout the whole season of danger, a few individual fruits, enfeebled by the severity of the April freeze, and surrounded by a whole host of enemies, more than equal to the destruction of the whole crop, had it survived the April disaster, could scarcely have won for itself higher claims to our confidence, by protecting a full crop under ordinary circumstances. The experiment of the current year, therefore, has tended to confirm my belief in the proposition that common carbonate of lime, (which is a very cheap and accessible article, of easy application,) applied before smooth-skinned or short-napped fruits have received the sting of the curculio, and continued until the tender stages of their growth have passed away—say four weeks—is a more efficacious remedy against the attack of the curculio than any nostrum now in general use, and considering its cheapness and applicability, is deserving of further trial.

That others might be enabled to judge of the soundness of those conclusions at which I have arrived in this communication, a detail of my experiments is ap-

pended; and as that of 1849 was conducted carefully with a view to throw light upon two not unimportant questions connected with this subject, viz: 1st, When should the treatment commence?—2d, How long should it be continued? I have thought it most instructive to copy what is relevant from my Diary.

With feelings of the sincerest good will toward yourself and that distinguished body of cultivators and amatuers over whom you have the honor to preside, I remain your obedient servant, L. YOUNG.

Details of Experiments with Lime in the Culture of Smooth-coated Fruits, during the years 1848 *and* 1849:

I have cultivated the plum since 1828, and in 20 years had two perfect crops; one, a first crop after making a stone pavement around some trees; for success in the other instance I never could account, unless no crop of the kind had ever preceded it in that spot to invite the curculio thither. Certain it is the same tree failed ever after. In the spring of 1848, a very abundant crop of handsome young fruits had passed the season of danger from frosts, and I determined to make several different efforts to realize a prospect so promising. Having the authority of that excellent periodical, the Horticulturist, for fresh stable manure, I treated the best of the trees and nearly my whole collection in that way—the manure being re-applied as often as it ceased to emit the offensive odor. One tree of Cooper's large, was fixed upon for the experiment with lime, and fearing a free use of it might hazard the life of the tree as well as the fruit, I made choice of one partially blown down by the winds, deeming it the lesser sacrifice if the experiment proved fatal. After the treatment with both lime and manure had been continued a few weeks, the efficacy of lime seemed so decidedly superior to that of manure, that I introduced lime into my orchard of Nectarines, which had now generally been pierced. Result: In a short time the Nectarines dropped, except the Elruges, which were never disturbed, and although no further attention was given, they ripened.

From one-fourth to one-third the crop of Apricots and Plums, treated with manure, arrived at perfection, except two trees of Cooper's large. A like proportion of these, say one-third—remained sound until they began to ripen. At this stage they commenced rotting, and upon both trees the aggregate that ripened without a blemish, scarcely equalled half a dozen.

The inclined tree of Cooper's large, received perhaps half a dozen dressings of powdered lime, at intervals. But during the season I never saw a punctured fruit—never saw gum upon any of its fruits or leaves; it retained its leaves well, though many were coated with lime, and about the 5th of August it furnished specimens of ripe fruit for the tables of the Kentucky Horticultural Society. This same tree retained its fruits and for five successsive meetings, furnished weekly contribtions. To give some conception of the quantity and quality of the crop, it may be stated that they sold readily at 40 to 55 cents per dozen, and at such prices a tree whose trunk was not larger than a man's arm, yielded fifteen dollars, over and above what were given to visitors as specimens, and what were eaten by the family.

1849. May 4. Yesterday I first observed the sting of the curculio upon an Illinois Wild Plum, and now resolved upon treating Wild Plums with ground plaster, Drap d'Or and Prince's Gage Plums with lime, as a preventive against the attack of the curculio; and desirous thoroughly to test the efficacy of lime, resolved to whitewash the few fruits which survived the frost, so that the curculio cannot possibly inflict his wound upon parts of the fruit which might accidentally be left uncovered by lime, when applied in the ordinary way—which is, to syringe the fruits, if not already wet by dew or a shower, and then with some elastic implement, as a broad spatula or tin shovel, throw small quantities of powdered lime upwards from beneath the fruits. This powder rises a dense cloud, and settles upon the fruit.

May 5. To-day re-applied plaster and lime, which had been removed by a shower.

May 15. During the last few days there have occurred several rains, which have rendered necessary the re-application of plaster to the Illinois Plums, and lime to the others. One Illinois fruit pierced since first treated with plaster.

May 25. Illinois Plum pierced on the 15th inst. has now fallen off. Found now three different Elruge Nectarine trees with a single fruit on each—all pierced by the curculio. Whitewashed them with lime.

June 3. Absent at Lexington five days. One rain while away. Now renewed application of lime and plaster. Limed fruits looking well, except two, which have received an injury sufficient to paralyze one cheek; the affected cheeks are rough, and emit gum.

June 12. Prince Gage and Drap d'Or Plums begin to swell and assume a rough, uneven exterior. No curculio; no glue, but on injured fruits.

June 19. No lime since June 3d. Plastered fruits all fallen, being first pierced.

June 21. Limed plums have a good appearance. No sting of the curculio as yet; apparently out of danger; no lime since June 3d.

June 30. The first of the limed fruits, a Prince's Gage Plum, paralyzed on one cheek, ripened about a week since. Every fruit whitewashed has reached maturity, without any disposition to rot in ripening—the unblemished ones attaining good size.

N. B. The three Elruge Nectarines whitewashed on the 25th of May, after they were pierced by the curculio, fell between the 5th and 10th June, the larva having eaten its way into the embryo catyledons.

Saxonville, April 27th, 1850.

To the Fruit Committee of the Massachuchusetts Horticultural Society—Gentlemen: My attention has been called to examine the insects which are destructive to fruits and ascertain their habits, in consequence of being a sufferer for a number of years; as the information may be of use, I herewith submit the result of my experiments and observations. There are only two insects which have caused me any trouble; the others are all easily destroyed; but the two to which I refer, viz., the Curculio and Codling Moth, have destroyed, the past year, seven-eighths of my apples, cherries, plums and peaches, and have disfigured the pears by their punctures. The curculio commenced puncturing the fruit about the 6th of June, and deposited its eggs in fully three-fourths of the apples, causing them to drop when very small, and to an equal extent the cherry and peach. The plums would have been all destroyed, but were saved by shaking the trees, the insect falling upon a cotton cloth extended over a frame which I had placed under the tree, and also by placing a frame over the tree and extending worsted netting over it, which was sufficiently open to admit air and light. The labor and expense of these methods are considerable, and I hope a better plan may be found; one of which I am now experimenting upon, with some prospect of success. I showered the trees before the bud broke, with whitewash, with my hand engine, covering the branches *entirely;* the time required for a moderate sized tree was only five minutes, and the expense of lime hardly worth estimating. If this does not answer the purpose, I shall syringe the fruit when little larger than a common white bean. My experiments have convinced me that this latter method is a *sure preventive.* I found four of the larvæ in one apple, nearly ready to go into the ground, where they go through their chrysalis state, and remain until the following season in a torpid state. I produced the perfect insect from the larvæ which was found in the apple, peach and cherry, in about four weeks. The larvæ of the curculio is the cherry and peach worm, and also the small apple worm. They are the cause of the cherry and peach rot by their late punctures.

Respecting the habits of this insect, I notice they came on to the fruit from the first to the tenth of June, and continue puncturing the fruit until the twentieth of July. I have seen them as late as the first of September, but have not discovered fresh punctures later than the twentieth of July, and am inclined to believe those which are seen later, are of the new crop, which have been disturbed accidentally in the earth. I ascertained the increase by placing a male and female under a glass vessel, and giving them one plum a day for thirty-six days; they deposited, upon an average, about eight eggs per day; they ceased depositing their eggs about the same time that the punctures ceased upon the fruit on the trees. They go through their chrysalis state in about four weeks after going into the gruond, and remain in a torpid state

through the season, unless the earth is disturbed. I produced ten of the perfect insects, which are little black beetles, from the larvæ, and fed them until the 1st January, with apple. The larvæ which were in the fruit, were placed upon the surface of earth in a glass vessel, and after eating the apple for three weeks, they left the fruit and bored into the earth to the depth of three or four inches, and then formed a little home, where they cast their skin, and in about four weeks the perfect beetle was formed. They lay dormant in this state until I disturbed them; some I took from the earth the first of August, and others on the first of October.

The mechanical performance of this little beetle should not pass without notice. In making her nest and laying her eggs, in the fruit, she exhibits an instinct that is truly wonderful. With her snout she punctures the fruit, in the shape of a semi-circle, to the depth of one-tenth of an inch, upon an angle of about forty-five degrees, and then makes a horizontal puncture directly under the skin, to the extent of one-tenth of an inch; she then turns round and deposits her egg at the entrance of the horizontal puncture; after which, she again turns round, and, with her proboscis, pushes home the egg to the bottom of the last puncture; she then places her proboscis into the first puncture, and presses the flesh of the plum against the skin, and holds it in this position about ten minutes, until the flesh and skin are knit together, for the purpose, as I suppose, of preventing the egg from falling out, and also to protect it from a minute spider. The semi-circular cut is made to provide for contraction, as, if made straight, the skin would split, and the egg roll out.

The curculio flies a great distance, and their numbers are immense where there are plenty of fruit trees. It is evident, unless some means are taken to diminish them, that they will eventually take all the fruit. I know of no article that will scent them off. I placed a bottle of spirits of tar directly under three plums, and in a few days found the fatal punctures upon them. The egg hatches in from five to ten days, and fruit may be saved by taking out the egg. But the application of whitewash, by syringing the fruit, I consider the most practicable, unless the experiment I am now trying answers the purpose, of syringing the limbs before the buds break. To make the wash stick to the fruit or tree, I put in a little glue.

The other insect to which I allude is the Codling Moth. This little moth deposits her egg in the eye of the apple. They commenced this year about the 1st of June, and were so destructive on my trees as to take about all the curculio spared, and many of the Bartlett and Passe Colmar Pears.

They are on all the season, or until the middle of September; there are two or three crops of them. I produced them from the egg in about five weeks; they were two weeks eating before they were ready to go into the chrysalis state, and three weeks before the perfect moth appeared; they are a small grey moth, with a distinct mark upon the hind part of the wings, of a brown color, edged with copper; they do not extend their wings more than seven-eighths of an inch; they were very lively at night and entirely at rest in the day-time, from which I infer that they fly only at night. I have never been able to find one upon the trees. After the eggs are hatched the worms eat to the centre of the apple and out at the side, and cause the worm-falls or *Moth-falls*. I saved a number of apples by placing a thin plate of bees-wax over the eye.

But the plan for practicable purposes, is to syringe the fruit with whitewash; this will fill the eye and thus prevent the moth from laying her egg. I am happy to state that I discovered a trap for the larvæ of this insect, by which an orchard can be cleared of them with but little labor. Noticing two or three of the larvæ creeping upon a piece of *cotton cloth* which was thrown into the crotch of an apple tree, my curiosity led to further examination, and to my surprise and pleasure, I found thirty of the larvæ in their silken homes, going through their chrysalis state; they knit the folds of cloth together, with silken ties, and there quietly change from the loathed worm to the perfect insect, which is, perhaps, under a microscope, as beautiful as any production of the insect tribe. I again placed

the cotton cloth in the crotch of the tree, and examined it in three weeks, and found another encampment of them in the same state, and concluded that they were quite in my power, with very little labor. The cloth should be placed in the tree about the 25th of June, and examined every three weeks, as it requires about this time to go through their chrysalis state; in one or two seasons they must be destroyed. They find their silken webs very readily attach to the little fibres of cotton, and by laying the cotton cloth to the tree the wind will not disturb them.

There is still another insect which does some damage to the foliage and fruit of trees. The perfect insect is a long, slender, dark fly, with long feelers, and two steerers behind; they are on the trees as early as the 15th of March, mating; they lay their eggs in the young bud, as soon as it opens; the egg hatches, and the larvæ commences eating the young leaves and curling them up, in which he makes his home. They are destroyed by applying the whitewash to the limb of the tree; and by covering the limb in this way, a very destructive little insect, the eggs of which are contained in little muscle shells on the apple and pear trees, will be destroyed. I will communicate the effect of syringing the tree with the wash before the buds break in July, when the whole effect of the experiment will be known.

Yours respectfully,

M. H. Simpson.

REVIEWS.

Proceedings of the second Congress of Fruit Growers, *in the city of New-York*, 1849.

This long-delayed report of the Pomological Congress of last October, is at length issued, and lies before us, in the form of a thick pamphlet—almost a book—of 109 pages. It is well printed, and notwithstanding the long time occupied in presenting it, is still interesting to those occupied with the culture or study of fruits.*

Before saying any thing as to the report itself, we must be allowed to say a word as to the publication of the future Reports of this Congress. The delay in printing this and the previous report, not to mince matters, arises simply from the fact that the Congress trusted to the American Institute to publish it, and of course lost, in some measure, the control of its early issue thereby. Now if these Reports are worth printing at all, they should be printed within thirty days of the close of the session, and if there are not ways and means enough, (and we know they are abundant,) for the next Congress to do this, by simply putting their hands in their pockets, why let us lay a tax upon the orchards. The apples and pears would "come down" if necessary to have the thing done speedily and without shuffling.

As most of our fruit-growing readers will have gone through this pamphlet before they receive this number, it is needless for us to notice its contents in detail. Every one interested in Pomology will admit that it is replete with interesting facts, opinions and discussions, and that it contains abundant proofs that the subject of fruit culture is receiving no small amount of attention in the United States at the present time.

There are two or three matters of general interest to our readers, which we will glance at in passing.

The *Zinfindal Grape*, a well known foreign variety, was stated by Mr. Parsons, of Long Island, and Dr. Munson and Mr. Gabriel, of New Haven, to be better adapted to culture in the open air, in Con-

* Those who have not already received their copies by mail, can obtain them at the office of the Horticulturist, in Albany, Boston, New York, and, we believe, Cincinnati.

necticut, than the Isabella. Dr. Munson has cultivated it for years, finds it not apt to mildew, and ripening more completely and regularly than the Isabella. Mr. PARSONS said it succeeded perfectly well in the open air. This grape is therefore worthy of trial in other parts of the country.

The merits of the *Red Antwerp Raspberry* (the large fruited sort) were stated by our neighbor, Mr. BARRATT, of Milton, on the Hudson—a village remarkable for its superb crops of this fruit. Mr. B. said the Red Antwerp, "as a market fruit, is better than any other variety, bearing carriage well, and not being exceeded by any in flavor. It sold in New-York for 22 cents a quart, and from three-quarters of an acre he had realized $330, at an average of ten cents per basket. There was a cultivator in his neighborhood who sold $1,500 worth from three acres, and that last year—a very unfavorable season—the crop lasting but three weeks instead of five."

There was a singular discussion about the Early Virginia and Large Early Scarlet strawberries. Mr. HOVEY, of Boston, insisted they were identical, while Mr. BARRY, of N. Y., Mr. HANCOCK, of N. J., Mr. MCINTOSH, of Ohio, and the editor of this journal, not only considered them distinct, but rated the Large Early Scarlet a good-sized production, and an excellent sort, and the Early Virginia a small and inferior one. Mr. MCINTOSH thought the Early Virginia small and worthless, and had rooted out the variety in his collection, and replaced it with the Large Early Scarlet. Notwithstanding this, we believe the question of the identity of the two sorts is still entertained by Mr. HOVEY, and we trust specimens of the true Large Early Scarlet, (which we think is hardly known in Boston,) will be sent to the Mass. Hort. Society, to settle it.

Besides these proceedings of the Congress, this pamphlet contains 36 pages of reports from fruit committees in various states, which, though necessarily imperfect, from the unparalleled shortness of the fruit crop of last year, nevertheless contain many facts and suggestions of considerable value to the pomologist.

We trust the next session of the Congress, which is to be held at Cincinnati in September, will be far richer in all respects than either of the foregoing ones. Our friends at the west are making liberal preparations for the occasion, and we hope the chairmen of the various fruit committees, as well as amateur and professional fruit-growers, are all busy, accumulating stores of information, to lay before that assembly.

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II. THE FARMER'S GUIDE *to Scientific and Practical Agriculture. By Henry Stephens. American edition; edited by John P. Norton. New-York: published by* LEONARD SCOTT & CO.

THIL, as we understand it, is a modified and condensed re-print of "Stephens' Book of the Farm," one of the most elaborate and carefully written of modern treatises on agriculture.

The work is published in Edinburgh, and re-printed here from stereotype plates sent over by the foreign publishers, at a very low price—$5 for the whole work, or 25 cents a number. Two numbers are already issued, and the others will follow rapidly.

The American edition is edited by Prof. NORTON, of Yale College, a name honorably associated with the agricultural interests of the United States. We shall therefore expect copious notes, calculated to render the work more useful to home readers.

Mr. STEPHENS' Book of the Farm is a most valuable work to the agricultural student, and to such we can warmly recommend the present publication. For the

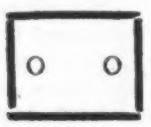
practical farmer it is far too elaborate and comprehensive—for the plain reason, that a man who works much, wants his reading put into hand-books or manuals, rather than elaborated into encyclopedias. But there are many to whom the *study* of agriculture, both as a science and a practical art, is presenting strong attractions now, in this country, and to such we can recommend this as presenting one of the best works for facilitating that study, so far as relates to modern British agriculture.

FOREIGN NOTICES.

Mushroom Spawn.—Mushroom spawn may be made in various ways, and is easily known by its smell and its small fine thread-like and hoary appearance. The smell is just the same as that of the common mushroom. It is to be often met with in manure heaps, and in fields, particularly where hay-ricks have been made, and the old thatch and bottoms have been thrown up into a heap to decay for manure. In heaps of manure that have been thrown out of an old cow-shed, where both horses and cows, &c., run into for shelter; and in the sweepings from horse-mill walks, thrown up into a heap in some dry corner, and allowed to lie for three or four months undisturbed, plenty of mushroom spawn is pretty certain to be generated.

If horse droppings, mixed with sandy loam, equal parts, and partly dry, placed in boxes or large flower-pots, with a small bit of good spawn in it three inches below the surface, all jammed in as solid as it can be done, and put in any heated structure, the whole bulk will very soon be found to be the best of spawn, if kept dry for 5 or 6 weeks.

Spawn may also be made in this way. Take one-third horse-droppings, one-third cow and sheep dung, and one-third sandy loam; let these ingredients be well mixed together, adding as much water as will make the whole something like stiff mortar. Spread the whole mixture out on a level bottom or floor in an open shed, from two and a half to three inches thick, and let it remain in that state a few days to dry; then let it be cut out into pieces about the length of common bricks, but a little wider—say an inch wider; let these pieces be so placed as not to get broken, and when dry enough to be handled about with care, and being a little more than half dry, pierce each brick about half through in two places thus: that



is, make the holes about an inch and a half in diameter, and place a small piece of real spawn in each hole, over which a portion of that taken out should be placed, something like sealing it over. After this, let the bricks be so placed as to forward their drying off as quickly as possible; and when perfectly dry have ready a quantity of well prepared dry, husky, fermenting materials, and place from about six to nine inches thick on the floor of some rather warm shed, and on this place all the pieces in a regular manner, with open spaces; that is, the pieces on one row crossing the openings in the row beneath, just as brickmakers arrange their bricks to dry, and keeping the innoculated side uppermost, to prevent the spawn falling out, bringing the whole up to a point, so that the stack may not fall about. Then cover the whole with the before mentioned kind of material, so as to give about from 50 to 55 degrees of heat, which will soon cause the spawn to run through the pieces. When this is observed to be the case, let the whole be stored away in some *dry, cold place* until required for use. These dry, light, hoary lumps will keep good for years in a dry place, but in a cold moist situation this spawn would soon perish; and if stored in a warm moist situation, the spawn will commence working or vegetating. *T. Weaver, Gardener to the Warden of Winchester College. Cottage Gardener.*

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Spent Tanner's Bark a good Manure for Strawberries.—Perhaps the following experiment with strawberries in tan, which I saw made near Edinburgh, may prove useful. The soil was very light, and appeared unfit for their growth, yet finer fruit or of better flavor I have seldom seen. This was entirely owing to a covering of old tanner's bark, about an inch thick, being applied between the rows. The bark not only kept the ground moist and the fruit clean, but it is the material of all others in which this plant most delights. Many persons may have remarked how almost all plants, but particularly the strawberry, will root into the old tan of a bed in which they have been forced, and yet because they know new tan will kill weeds, they do not think it valuable as a manure. In the same garden were beds of strawberries which had not been covered, but after growing and flowering well, these bore no fruit worth gathering (a very common thing if the soil is too light;) others were almost burnt up, whilst those to which the tan had been applied were luxuriant, and the ground was covered with fine runners fit to plant out, though the fruit

was just in perfection—an uncommon circumstance near Edinburgh. *I. R. Pearson. Chilwell. Gard. Chronicle.*

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On Drying Specimens of Flowers.—As the season for collecting plants is approaching, may I be permitted to give the particulars of the process I have adopted in drying specimens for the Hortus Siccus, especially the more delicate and succulent ones, for which I have found it peculiarly adapted, as it combines the greatest equality of pressure with despatch in drying. My method is as follows:—The apparatus required is very simple, consisting of a few canvass or linen bags, of such size that, when laid flat, they will rather more than cover a sheet of demy paper, a quantity of clean sand, an old saucepan, or other convenient vessel, to heat it in, and a few quires of blotting-paper. Having provided these, first put a sufficient quantity of sand in the saucepan, over the fire, and, while this is heating, take a quire of blotting-paper, on which arrange the plants, covering them with two or three sheets of blotting-paper. When the sand is sufficiently heated, and uniformly so (which may be promoted by stirring it with a stick,) pour into one of the bags enough to fill it to one-third. The mouth of the bag being closed, by tying or folding back, it is then to be laid carefully over the plants arranged between the paper, and the sand contained in it to be spread out by the hand, and pressed with a board, so as to form a flat uniform surface. This process may be repeated, several layers of paper, plants, and sand-bags being laid on one another. If this is done, no extra weight will be required—the smallest and most delicate plants being placed in the uppermost layers; but if the subject be large and thick, a board and weight will be generally necessary. Unless they are very thick and succulent, in which case they may require a second application of hot sand, the plants will generally be found quite dry within twenty-four hours, and often much sooner. This is one advantage; as, by this rapid desiccation, the colour is preserved in the greatest perfection—*i. e.*, if the temperature be well regulated. The second, and perhaps of more importance as regards the botanical value of the specimen, is, that the sand, by adapting itself to the inequalities of the object under pressure, prevents any crushing of the stems, receptacles, &c.; while the parts of the leaves in juxtaposition with a hard, thick stem, which, by the ordinary method, escape any pressure, and consequently shrivel up, are all equally flattened. *W. S. Coleman, in Pharmaceutical Journal.*

DOMESTIC NOTICES.

Raising Seedling Grapes.—Now is the time for those who wish to experiment with seedling grapes to commence their operations. Though something good *may* no doubt come from planting the seeds of Isabella and Catawba grapes at random, yet, as *chance* becomes *certainty*, when we call in the aid of *hybridizing*, no scientific cultivator will neglect the latter advantage. The first great desideratum is to get a *hardy* table grape, entirely free from pulp and of high flavor. For this purpose, we would suggest crossing the Isabella and the Black Hamburgh, or the Catawba and the Chasselas—the native grape being made the *mother* of the new sort.

An improved wine grape is also greatly needed. Now as Miller's Burgundy is the great wine grape of Europe, we would suggest crossing that variety with the Norton's Seedling, or the Ohio, for a claret wine grape; and with the Catawba for a champagne wine grape.

Such of our readers as need a spur to their zeal in this matter, will remember that very large premiums have been offered by both Mr. Longworth of Cincinnati, and the Mass. Hort. Society, for an American seedling grape superior to the Catawba. One tenth part of the attention to raising new seedlings of native grapes that has been bestowed of late years in England on the Dahlia, (with such wonderful results,) would give not one but dozens of hardy grapes, as delicious as the table grapes of Europe, and as hardy as our native vines. That nurseryman who shall be the first to get control of a good stock of such a variety, may as easily make $5,000 by it as $5.

Those not familiar with the modern practice of breeding fruits and plants, are referred to our *Fruits and Fruit Trees*, p. 9.

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Agricultural Schools.—We are sorry to have to announce that the New York Legislature adjourned without passing the bill drawn up by the committee appointed by the Governor, for the Agricultural College. This was not from any opposition or want of interest in the subject, but simply because the bill was left sleeping to the last, and not "brought up." There was an abundance of good feeling for it in general, but especial champions seemed to be wanting, and as the farmers themselves do not understand the want of "lobbying" their servants, the members in their seats had too much else to attend to, to give it the necessary attention. We hope this will be remembered at the next election, and that every farmer who wishes to have his rights respected,

will vote for a member who *is* in earnest for agricultural education. Besides this, let every agricultural society in the state send a delegate to Albany next winter, to represent to the honorable gentlemen that there are a *few* of their constituents at home, who are *farmers*, and who mean to have that fact understood and appreciated, and we stake our reputation that there will be no lagging in the matter of appropriation for the education of the farmer's son.

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AGRICULTURAL BUREAU.—A bill has just been introduced into the U. S. Senate, to establish, permanently, an Agricultural Bureau at Washington —the chief of which is to be called the *Commissioner of Agriculture*, and to receive the same salary as the Commissioner of Patents. The bill states,

"That it shall be the duty of said Commissioner to collect agricultural statistics; to procure and distribute valuable seeds, cuttings, buds and tubers; to procure and put in operation a chemical laboratory, at a cost not exceeding two thousand dollars, and to cause all desirable analyses of minerals and mineral waters, and such as relate to composition and improvement of soils; the feeding of domestic animals; the preparation and preservation of provisions and breadstuffs; the manufacture of sugar, and such other manufactures as may be connected with agriculture, and arise immediately out of agricultural products; and to prepare and make annually a full report to Congress, containing an account of such experiments as may have been made, and such useful information as he may have obtained on all the subjects connected with the duties of his office."

The bill also provides for an agricultural chemist with a salary of $2000, a chief clerk with a salary of $1600, a recording clerk with a salary of $1000, a messenger with a salary of $750.

The bill is a good one, and that a commissioner so appointed, if a *competent* one, could do a vast deal for the agricultural interest, and thereby the interest of the country generally, is undeniable. We hope it will pass as it stands.

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ASPECT FOR APRICOTS.—Since writing the article on the apricot, in our last number, we have had further proof of the advantages of a northern aspect for this tender-skinned fruit.

In the garden of our neighbor, T. W. CHRYSTIE, Esq., we were shown half a dozen apricot trees of the finest sorts, which uniformly bear abundant crops of large and delicious fruit, without the least care, being treated like common standard peach trees. The secret of their uniform productiveness and excellence, Mr. C. informed us, was simply in the aspect. Trees of the same varieties had been planted on other sides of his residence, and in various open parts of the grounds, the soil being the same, but they had, without exception, all failed, sooner or later. Hence Mr. C. had been inevitably led to the same conclusion which we have reached, viz: that the greatest fallacy in planting an apricot tree, is that of putting it in a southern exposure. The temperature in the middle states is always high enough to ripen the fruit in a northern aspect, while the tree is uniformly more healthy and less liable to injury by frosts or insects, than in any warmer position.

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TOBACCO WATER *vs.* INSECTS.—Every good gardener knows that to combat his worst enemies, the insect tribe, successfully, he must open the campaign early and briskly. An hour's active operations, when they first begin to marshal their forces, is worth a whole day's battle when they have mustered in full strength.

Tobacco water is his best ammunition, and if he has much fighting to do, he must immediately set about getting it ready. To make it in a state fit for using out of doors, he should have a barrel full —and the following is the way to make it: First go to the tobacconists and buy shag tobacco or tobacco stalks—the latter worth only three cents a pound. A pound will make four gallons of tobacco water; if you wish to make half a barrel, you will require four pounds—or if a barrel, eight pounds. Put the stalks in the barrel, and pour the water over it—nearly boiling—at the rate as we have said, of four gallons to a pound of the tobacco. When it is cold, stir the whole thoroughly, and it is fit for use, or you may pour it off, and adding again one half the former quantity of hot water, make as much more.

Tobacco water, made in this way, will destroy almost any insect of the aphis or sting kind, without any injury to the plant. Some very delicate plants may require that it be diluted—and some will bear it made stronger—so that before undertaking the operation, largely, you should try its strength upon the insects and flowrets for 12 hours, to see if it answers the purpose, without injury to the foliage.

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INSECTS ON THE ROSE.—Numberless insects infest the rose of late years—the two worst being the rose slug, and a small aphis, both living and feeding on the under side of its leaves. The aphis appears first, and sucking part of the juices, causes the foliage to look mottled, sickly, and unhealthy; the slug comes next, and eats away the fleshy part of the leaf, till it looks, as Mrs. PARTINGTON says, like "a 'natomony." Tobacco water will kill both these worms, if applied once or twice about sunset. As the insects are all on the under sides of the leaves, it may be puzzling at first to know how to get at them, but the difficulty is easily overcome by using one of Poolis' or Reid's syringes, made with a *crooked* or goose *neck*, so as to throw the shower in an oblique direction. They may be had at any of the principal seed stores.

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MASSACHUSETTS HORT. SOCIETY.—*Dear Sir*: I paid a visit to the first exhibition for the season,

of our "Horticultural," which came off on the 18th of May. The Hall looked light and cheerful in itself, having been newly painted and arranged —to say nothing of the effect produced by luscious fruits and bright flowers—nor must I fail to add, brighter eyes—for, as you are aware, the "Horticultural" is the most fashionable of Saturday lounges in Boston.

The show, though not large, was admirable—and I must send you a few memoranda.

In the first place, Mr. ALLEN, of Salem, (author of the treatise on the vine,) made a grand display of forced grapes; *seventeen* of the most beautiful and delicious varieties, on the 18th of May, proved that there are some authors who can *practice* as well as *preach*. Besides this, he contributed ripe and beautiful Hunt's Tawny Nectarines, May Duke Cherries, and several fine sorts of figs—all ripened under glass.

Mr. TUDOR, of Nahant, and Mr. GORDON, of Brighton, both exhibited Easter Beurré pears, well preserved and in good order.

Mr. CROCKER, (by Mr. NEEDHAM) exhibited a fine sample of Black Hamburgh grapes.

There was a beautiful array of cut flowers—the principal contributors being Messrs. WALKER, J. A. KENRICK, A. BOWDITCH, J. NUGENT, and LEWIS DAVENPORT. In Mr. DAVENPORT'S collection, I noticed fine specimens of the new Verbenas—Robinson's Defiance, and St. Margaret, as well as the Newington Beauty Cineraria.

Col. WILDER made quite a brilliant display of new and beautiful exotics—about 40 pots in all—and his *Ericas* were especially beautiful—a new yellow variety attracting great attention. There were four varieties of *E. ventricosa*. The finest new Azaleas and Pelargoniums were also shown in his collection.

This gentleman also exhibited superb specimens of "Downing's Colossal Rhubarb," which, as he stated to various members present, he considered superior to any other variety that he was acquainted with, after having tested all the best English sorts. I shall keep you advised of the *notabilia* of the future shows, and meanwhile am yours, *A Looker-on in Boston. May* 21, 1850.

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CREAM HILL VINDICATED.—*Mr. Editor:* Although in replying to some criticisms on "Flowers for the Million," by your correspondent, under the name of Jeffreys, I may be exposed to the same dilemma as the member of the Vermont Legislature, when referring to the weak argument of his antagonist, remarked, that "it *wrenches* a body dreadfully to kick at nothing;" yet, wishing to correct error, wherever found, and defend the truth, whether ignorantly or designedly assailed, I would ask a small space in your valuable journal, for this purpose.

Jeffreys takes "Cream Hill for his text," as he says; to illustrate which, he makes a quotation, "which, some body has said and wrote it too—who, 'tis no matter now—that 'man is an imitative animal,'" and further says, that "to any one conversant with American names of places, there can be no manner of doubt that we are of the genus Imitatii—thorough." He then slides upon "Mrs. Primrose, Cherry and Strawberry Hills," the "Amblesides and Sunnysides, Inglesides and all the other sides," tells a story of "Rosemount," and says that he has "known Hazle Woods which bore nothing but pine trees," &c. &c., "by which time the drift of his meaning," he says, "is quite apparent."

The plain English of all this, he would have us understand, is, that the place of residence of the author of "Flowers for the Million," is named Cream Hill, in imitation of the fashion, or resemblance to the practice of others, who have chosen what he is pleased to call "lack-a-dasical" names, to designate the places of their residences.

Now, never was any poor, bewildered wight, more mistaken than our friend Jeffreys. Neither a "*thorough imitativeness*," or because of "a fine dairy, redolent of aromatic grasses, of rich milk, and delicious butter," with "a dish of ripe strawberries, smothered in cream"—although the latter reasons may abound to the heart's content—constitute the true reason for the name in question. More than a century ago, the explorers of this then new portion of New England, as they surveyed its several hills, came upon one distinguished above its fellows, with marks of superior richness of soil and beauty of scenery. As they viewed its southern aspect, with its variegated forests, its pretty lake, and, away in the distance, as the eye encircled the wide horizon, embracing many other hills, they involuntarily exclaimed,—"This fair hill is the cream of the hills." From that day to this has Cream Hill had a name and a place. The earliest records of the town show the name as contained in the various land conveyances of that day. And from the very spot where these pioneers of civilization beheld the magnificent scenery which excited their admiration, is presented to the eye a range of nearly one hundred miles in extent, spread out, like some vast map, embracing hills and vallyes, mountains and plains, woodlands and meadows, cornfields and orchards, with here the village spire, and there the clear waters of the lake, sparkling in the sunbeams and reflecting from its bosom the tall pines or oaks which stand on its borders. While the more immediate prospect is enlivened with here and there some pretty cottage or neat farm house, in the distance towers the long blue range of the Catskills, whose lofty heads seem pillowed among the clouds, and which, at sunset, are tinged with golden colors, and cast their giant shadows far eastward, till the deepening shades of evening conceal the wide-spread landscape from the view.

Whether there is "poetry" in all this or not, one thing is nearly certain, that should your honored self, Mr. Editor, (and none could receive a more cordial greeting,) or our friend Jeffreys, please to honor Cream Hill with a visit, your own senses

should testify to the "fine dairy, rich milk, and delicious butter;" or, if in season, "a dish of strawberries smothered in cream;" and as to the "hospitality," come and see. And when Cream Hill again is made a text for edification, the writer may be able to instruct from his own experience. *Veritas. Cream Hill, West Cornwall, Ct.*

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VERBENAS: EVERGREENS.—*Dear Sir:* With the request made in the last number of the Horticulturist, in relation to the success of my experiment in wintering Verbenas, I cheerfully comply. Although greatly disappointed in the result, (it having terminated fatally,) I am confident of its ultimate accomplishment. Up to the 1st of April, the plants, to all appearance, were perfectly healthy; after that period, they began to give signs of decay, and before the middle of the month, were quite dead. This sudden and rapid change from health to decay, I was greatly surprised at, and can only ascribe it to the sudden change of temperature which the plants were subjected to, in admitting the sun; had it been gradual, I am confident they would have lived, and now been in a vigorous condition. However, nothing daunted at this unexpected termination of my hopes, the experiment will be repeated next fall, and with what success, you shall know in due season.

Are the Cedar of Lebanon and Deodar Cedar too tender for this climate? [There is a Cedar of Lebanon in Westchester Co., N. Y., 50 feet high. The Deodar Cedar is even hardier than the Cedar of Lebanon.—ED.] I am greatly surprised that our people—our neighbors—those who have a taste for the beautiful in nature—who spend hundreds in the adornment of their grounds—in collecting together almost every variety of deciduous tree and shrub—should neglect one great feature in the complete whole—the introduction of not a few, but *many* evergreens. Nothing adds more to the beauty, to the cheerfulness, or to the effect, in a landscape, than a well-disposed group of these beautiful productions of nature. Every American who has visited the shores of the old world —England, for example—is struck with the varied beauty of her evergreens. But few are indigenous there; yet the gardens show every variety grown in the temperate zone, from the "time-honored Ivy" to the majestic Cedar of Lebanon; and every American who returns, inwardly regrets that some of those fine specimens of park scenery, without which no landscape is complete, are found wanting here. I am glad to see that there is a manifest spirit beginning to be evinced around us, by gentlemen of taste, in bringing into notice these long neglected and hidden beauties. I have the Spirea prunifolia, or double Japan spirea; does it bloom during the summer? and is it sufficiently hardy to stand our Berkshire winters? [It blooms in May, and is quite hardy. ED.] Yours truly, *Theo. Clapp. Pittsfield, (Mass.) May* 18, 1850.

CAMPHOR *vs.* CURCULIO.—As the season for the ravages of the curculio approaches, I beg leave to trouble you with what, I hope, may prove a protective. I cannot promise you that it will certainly do so, for this I am not warranted in doing, and I have no disposition to exaggerate its value. Plan after plan has been tried, only to end in failure, till I should not wonder, if you should read this communication with a feeling approaching disgust. Still it is perfectly simple, attended with little trouble, and still less expense; and if it does no good, is incapable of doing mischief.

It is simply to suspend camphor, either in bags or open vessels, from one or more points of the trees you wish protected, about the time the ravages of the insect may be expected.

If you are a *practical naturalist*, you are aware that nothing is more offensive to insects than camphor. So that from reasoning on the subject you will readily allow the probable value of the plan. This much, however, I can assure you that it has seemed to succeed; but whether this success was a *post hoc* or a *propter hoc*, a fair trial only can determine. *A Subscriber. Pittsburgh, May* 20, 1850.

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HARDINESS OF PLANTS IN MASS.—*Dear Sir:* I find that that Cryptomeria japonica, Araucaria imbricata, Cedrus deodora, seedling Pines from California, Cedar of Lebanon, Spirea prunifolia, pl., Forsythia viridissima, Weigela rosea, and several hybrid Rhododendrons, have stood the winter perfectly, without protection, in my grounds at Dorchester, near Boston. Yours sincerely, *M. P. Wilder. Boston, May* 20, 1850.

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COAL ASHES FOR CHERRY TREES.—*Dear Sir:* I "took the hint" you gave last spring, and applied hard coal ashes very plentifully to the soil about my cherry trees, and am happy to say, with the best results. The trees have come into leaf this spring, and are showing a vigor of new growth, and darkness of verdure, which they have long been strangers to. My soil, I should add, is a strong loam, inclining to clay. Yours, *A. N. Delaware, May*, 1850.

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ERRATA.—We observe that our proof reader, (who is always 80 miles distant,) has somewhat neglected his business in the last number. In the plans of the octagon house, he has allowed the engraver to spell "vegetable" "*vegitible*," "drawers" "*draws*," and "Boudoir" "Budoir"!—which is rather incorrect.

On p. 520, (16th line from bottom,) for "make" read "made"; page 521, (24th line from bottom,) for "records" read "rewards"; page 528, (4th line from top,) for "old friend" read "valued friend"; same page, (10th line from bottom,) for "collector," read "subscription"; page 535, (22d line from top,) for "*pearl-blossom*" read "peach-blossom"; same page, (30th line,) for "we art doubtful" read "we are doubtful."

ANSWERS TO CORRESPONDENTS.

PRUNING ARBOR VITÆ.—*W. L. Vanderburgh*, (Fultonville, N. Y.) No tree will bear pruning or shearing better than this evergreen. We have cut off the tops of hundreds two or three feet each, without injury, and improving the growth for a hedge. You had better shorten the tops of your new planted lines, and cover the earth over the roots with straw, litter, shavings, or any other mulching, to keep the roots moist and cool.

SUMMER TRANSPLANTING.—*G. A. Brush*, (Detroit.) The trench referred to by Mr. PERKINS, (vol. 1, p. 171,) as three or four inches wide, may be made as much wider as you please—as that is not material—only the wider the trench the more water will be required to fill it.

STRAWBERRIES.—*J. H.*, (Albany.) The variety you have sent us the drawing and description of, appears to be the Grove-end Scarlet—a standard English variety. *E. R. J.*, (Philadelphia.) Elton is a delicious late strawberry—but wants ample cultivation—a deep, rich soil, and rather shady site—say the north side of a fence. It ripens a week after the strawberry season. You don't succeed with strawberries, because your soil is worn out. Trench it three feet deep, and *manure it heavily* with stable manure while trenching it, and you will get as fine crops as your neighbors. To obtain good crops of the Alpine in *September*, you must have damp soil, made rich and deep, and you must destroy all the blossoms that appear in the spring. You can then gather a fine *crop* of fruit in the autumn. If you have no straw to protect the fruit, use instead the short grass that you mow from your lawn.

VEGETABLES —*A Vermont Subscriber*. Your season is not quite long enough for the okra or tomato, but you may succeed very well with both these vegetables by starting them early upon pieces of sods, turned upside down, a little soil put over them, and the seeds sown thereon—the whole protected by a simple frame, with any old sashes, if you have no hot-bed lights, in the same way as melons are started, (see page 480 of last vol.) By planting them in this way, and by transplanting them on the sods when all danger of frost is over, you can get a good crop and add a month—so far as these are concerned—to the length of your season.

HARDY FRUITS.—*D. H. Carley*, (Barrington, Ill.) We refer you, for lists of fruits that have been proved valuable for cultivation in the extreme northern states, to the proceedings of the Congress of Fruit-growers, (which we have sent you by mail.) See the reports of the committees for the states of Vermont, Maine, Iowa, and with lists of fruits order your trees from the east as early as possible in the *autumn*.

VERBENAS.—*A. C.*, (Richmond.) Your Verbenas failed from having been attacked by insects—the small gray ones you speak of at the roots. Mix a little ashes with the soil of your beds, to prevent it. It should have been done when the beds were made in the spring. "Brill's striata" is a pretty American seedling, with flowers striped somewhat like Van Houtte's phlox.

KNOTS IN PLUM TREES.—*A.*, (Long Island.) Cut out the knots, down to the sound, healthy wood, and wash the wounds with weak copperas water. We have found this effectual.

VINERIES.—*J. Wilson*, (New York.) Never syringe the vines while they are in bloom; the most successful cultivators do not syringe any more after the blossoms open. The best time to plant a new vinery is in May, but it may be done with success as late as the middle of June. The vines, one or two years old in pots, may be had of any of the leading nurserymen. Rely on Black Hamburgh, Chasselas of Fontainbleau, White and Grizzly Frontignans and Muscat of Alexandria, for your principal crop. Other sorts may be added for variety. *W. Hazzard*. Your vines fail because your border is exhausted. Fortunately, there is an easy remedy for this, viz: watering it copiously with liquid manure. Prepare several hogsheads of it—an infusion of barn-yard manure is the best; and apply it plentifully, once every week, till August.

SUMMER GREEN-HOUSE.—You may render your green-house attractive and beautiful, instead of "an ugly thing in summer," by filling it with Fuchsias, Achimenes, Gloxinias, and other exquisite flowers, introduced within a few years past. They should be allowed plenty of room, (about three times as much as winter plants,) and the glass partially shaded. Any of the leading growers will furnish you with a good collection of these summer blooming exotics—taking the most popular and showy sorts for a very moderate price—the selection left to them.

APPLES.—*H. R. Hart*, (Utica, N. Y.) The apples were received in good order, but their name is unknown to us. We advise you to send specimens to the next Pomological Congress. *W. W. C.*, (Worcester.) Don't give up your orchard. We have known trees as severely injured as yours by the borer, entirely restored. Take out all the insects immediately, or kill them by thrusting a wire into their holes, and coat the trunk and principal branches with a mixture of soft soap and tobacco water, immediately, to prevent a fresh deposit of eggs in the bark.

HARDY GRAPES.—*A Constant Reader*, (Trenton, N. J.) The Isabella vines, which have been planted two years, and "won't grow vigorously," may soon be brought to behave themselves, if you will have the "suds" of the "weekly wash" poured at their roots. Try it and see.

WINTER CAULIFLOWERS.—*A. M.*, (Baltimore.) Sow seed of Walcheron cauliflowers, for winter flowering, immediately, and plant them out as soon as large enough. They need not show signs of flowering, when you take them up at the end

of autumn, as they will develop the heads in the cellar during the winter.

NECTARINES.—*W.*, (Rochester, N. Y.) Try the effect of plaster (gypsum) applied about the middle of June, as a top dressing, (turned under two or three inches,) to prevent the fruit from falling off while *stoning*.

ROSES.—*E. Buckingham*, (Zanesville, Ohio.) Consult "Buist on the Rose," the best work for your purpose.

PENNSYLVANIA HORTICULTURAL SOCIETY.

The stated meeting of this society occurred on Tuesday evening, May 21, 1850. The president in the chair.

The exhibition was very interesting, and was numerously attended with gratified visitors. The object presenting the greatest attractions, was a table of fruits, rare for the season, from the president's (C. Cope,) green-houses; it contained a dish of Black Hamburg Grapes, four large bunches; and another of three, of White Sweet-water, fully ripe; a strawberry plant in full bearing; also, a dish of Elruge Nectarines, and others of delicious peaches, two varieties, possessing the greater interest, as being the first occasion that the two latter fruits were produced before the society in May.

Among the many choice plants in the various collections, might be noticed some of more than ordinary interest. In the collection shown by Peter Mackenzie, was a remarkably fine specimen of the Azalea variegata, displaying a perfect mass of the richest flowers; a gorgeous show of Calceolarias, consisting of twenty pots of eighteen varieties; three new Fuchsias, and choice Verbenas. On Robert Buist's table were many new plants—the Russellia floribunda, Calystegia pubescens, Eschynanthus Bosceanus, Campanula grandis, and a seedling Cactus, shown for the first time; and of twenty-one varieties of Pelargoniæ, sixteen were entirely new; eighteen herbaceous Calceolarias, and six of shrubby varieties. On that from James Dundas' green-houses, were fine specimens of Stigmaphyllum ciliara, Justicia pulcherrima, Clerodendron splendens and pyrimidalis, and four choice Fuchsias. Among those from Caleb Cope's green-houses, were Abelia rupestris, Begonia sanguinea, Cinerarias Beauty of Newington and Attila—all new. In John Lambert's collection were a fine specimen of Rhododendron, Pentas carnea, Calceolariæ, Fuchsiæ, Gloxiniæ and choice Pelargoniæ—choice varieties. In Miss Gratz's, Fuchsia exoniensis, Parson, Dutchess of Sutherland, Petuniæ, Plumbago sp., etc. From John Sherwood, six of the choicest Roses, Cuphea platycentra, Fabriana imbricata, Verbenæ, etc. By Wm. Hall, six select Roses. Jonathan Bass, Matthew Mills and Robert Scott, exhibited collections of choice Tulips. Robert Kilvington, a table of interesting indigenous plants. A number of designs of cut flowers and bouquets were, as usual, brought forward.

On the vegetable tables, among the fine specimens were observed a number of bunches of the largest Asparagus ever shown, and said to be of a new variety, and exhibited by Wm. Lutz, Moyamensing. On the president's table, were large Cucumbers, new Potatoes, Tomatoes, three varieties, and new Peas. On Anthony Felten's, Cauliflowers, Cucumbers, Lettuce, and other kinds. On Miss Gratz's, were Sea-kale, Asparagus, Cauliflowers, etc. In Rhubarb, there was spirited competition; William Hobson presented very large Victoria and seedling varieties; Thomas Hancock, twelve stalks, weighing fourteen pounds and ten ounces, (the expansion of the leaf being taken off;) the largest stock, one pound eight and a half ounces; Robert Buist, very fine and heavy; Samuel Cooper, very large; Anthony Felten and Patrick Gallagher, very good.

Reports of Committees.—The Committee on Plants and Flowers have awarded the following premiums, viz:

Camellia—for the best American seedling, exhibited during the season, to Peter Mackenzie. Pelargonia—for the best six named varieties in pots, and for the second best, to Robert Scott, foreman to Robert Buist. Roses—for the best perpetual, six named varieties, to Wm. Burnley, foreman to John Sherwood; for the second best, to William Hall. Tulips—for the best eight named varieties, to Jonathan Bass; for the second best, to Matthew Mills. Pentas carnea—for the best specimen, to Maurice Finn, gardener to John Lambert. Hot-house plants—for the best grown, three named varieties, to James Bissett, gardener to James Dundas; for the second best, to Ben Daniels, gardener to C. Cope. Green-house plants—for the best grown, three named varieties, to Maurice Finn; for the second best, to James Bissett. Plants in pots—for the best and most interesting collection, to Maurice Finn; for the second best, to Robert Scott, foreman to Robert Buist; for the third best, to Patrick Gallagher, gardener to Miss Gratz. Indigenous plants—for the best display, grown in pots, to Robert Kilvington Design of cut flowers—for the best, to Ben Daniels; for the best, of indigenous flowers, to Robert Kilvington. Basket, formed of cut flowers—to Ben Daniels. And a special premium of three dollars to Robert Scott, foreman to Robert Buist, for three new plants—the *Eschynanthus Bosceanus*, *Calystegia pubescens*, and a seedling *Cactus*. The committee have much pleasure in noticing the beautiful collection of plants from the garden of Peter Mackenzie. (The Seedling Camellia exhibited by him, *ad interim*, and for which the premium was awarded, is of the following description: Plant—the original stock—about three and a half feet in height, in thrifty condition, grown from seed sown in 1844; leaves four inches long, by two to two and a half wide, oblong-lanceolate, with attenuated point, closely dentated, veined, light green, paler on the under surface; petiole half an inch long; bud small ovate, scales light green, margins thin, very slightly discoloured; flower four inches in diameter, petals in twelve rows, regularly imbricated to the centre; colour a dark cherry red. The first flower borne by the plant.) The committee take pleasure in reporting that Gerhard Schmetz exhibited before them, *ad interim*, a number of Seedling Tulips, three years from the seed, all healthy, and large, mostly plain, but doubtless will break with a few more years of cultivation, as some of them promise fair.

The Committee on Fruits report, that they award a special premium of ten dollars to Ben Daniels, gardener to Caleb Cope, for the most beautiful and superb display of four large bunches of the Black Hamburg Grape, perfectly coloured; three large bunches of ripe Sweet-water Grapes, a number of fine large high flavored Peaches, and a dish of finely ripened Nectarines, of the Elruge variety: also, a pot of Strawberries.

The Committee on Vegetables report, that they have awarded the following premiums: Cucumbers—for the best six in number, to Ben Daniels. Rhubarb—for the best twelve stalks, to William Hobson; for the second best, to Tho. Hancock. Peas—for the best half a peck, to Ben Daniels. Potatoes—for the best ten pounds, to Ben Daniels; for the best display by a commercial gardener, to Anthony Felten; for the best display by an amateur gardener, to Ben Daniels; for the second best, to Patrick Gallagher, gardener to Miss Gratz. And special premiums, of two dollars each, to Patrick Gallagher, for a fine display of Cauliflowers; and to Wm. Lutz, for a fine display of Asparagus.

The committee notice a fine specimen of Seedling Rhubarb, shown by Wm. Hobson. Also, a couple of fine Potatoes, grown in Mercer county, Pa., by Wm. F. Clark, called the "Big Red;" where grown, two of the tubers weighed respectively, one pound six ounces, and one pound five ounces, said to be prolific.

Members Elected.—Capt. Wm. McMichael, Joseph Milligan, secretary of the Royal Society, Van Dieman's Land, I. G. Dayton, Charleston, S. C., to honorary and corresponding membership. Emlen Physic, I. L. Errnger, I. A. Clay, E. A. Crenshaw, W. L. Schaffer, Wm. Burnley, B. A. Fahnestock and Matthew Gardiner, to resident membership.

THO. P. JAMES,
Recording Secretary.